

## CHAPTER 2

### Visitor Use Improvements - A Menu of Options



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## Introduction

The goal of this study is to present transportation and visitor use improvement options for the park to consider implementing during and after the Going-to-the Sun Road rehabilitation. These improvements will serve to maintain or enhance the visitor experience and level visitor use along the Road and throughout the park. The General Management Plan (GMP) for the park states the desired visitor experience on Going-to-the-Sun Road as follows:

“The Going-to-the-Sun-Road corridor will be managed to provide all visitors with an opportunity to experience the scenic majesty and historic character of the park through a wide range of visitor activities, services, and facilities. The cultural significance and traditional use of the Going-to-the-Sun Road will be emphasized.”

The historic significance of the Road has been recognized by its designation as a National Civil Engineering Landmark and a National Historic Landmark. In the almost 70 years since the opening of the Road it has come to be recognized by tourists worldwide as one of the world's most scenic mountain roads, and has played a major role in the development of Glacier National Park. Several of the significance statements presented in the GMP to explain the importance of Glacier also explain the significance and importance of the Going-to-the-Sun Road. These include:

- Glacier's scenery dramatically illustrates an exceptionally long geologic history and the many geological processes associated with mountain building and glaciation.
- Glacier offers relatively accessible spectacular scenery and increasingly rare primitive wilderness experience.

- Glacier is at the core of the “Crown of the Continent” ecosystem, one of the most ecologically intact areas remaining in the temperate regions of the world. Going-to-the-Sun Road allows visitors to traverse the five distinct vegetation zones that overlap in Glacier.
- Glacier’s cultural resources chronicle the history of human activities . . . that show that people have long placed high value on the area’s natural features.

Driving the Going-to-the-Sun Road is the primary way in which visitors experience Glacier National Park. It is one of the park’s premier cultural resources and a primary attraction that draws visitors to the region. The Road provides visitors access to the park’s interior, and links a variety of visitor attractions, backcountry trailheads, and overnight accommodations. Driving the Road is an integral part of the Glacier National Park visitor experience providing adventure and exposure to the outstanding resources for which the park was established.

As the *Cultural Landscape Report* for Going-to-the-Sun Road states:

“Going-to-the-Sun Road, is, in its own right, a national treasure. Like the mountains, wildlife, cascading waterfalls and glaciers, it draws travelers to Glacier National Park because of its significance as a visual and cultural resource. Whether in recalling the white-knuckle, heart pounding experience of riding along the narrow roadway, or the spectacular scenery which the Road arrays, park visitors remember their motor trip over Logan Pass. In fact, for many, the Road and park are one and the same. The interaction between the Road and the visitor is akin to the experience that a hiker might have in reaching a high summit – characterized, perhaps, by less exertion, but with no less exhilaration. Or, put another way, the Road is the ultimate trail through the park and as such provides the visitor with a series of recreation, interpretive, and scenic experiences.”

There are clearly evident character differences between the east and west slopes of the park, which are apparent even to the untrained eye of the average visitor. In fact, the Road passes through seven segments that are ecologically and visibly different and provide different but related experiences (Figure 11). The following narratives describe these seven landscape segments and begin to lay out the basic visitor experience on Going-to-the-Sun Road. Visi-

tor experience on the Road will be further developed and refined as part of the visitor use plan.

### **Segment 1: Apgar Flats** (2.9 miles - West Glacier to the Apgar Loop Road).

This area is flat with dense forests of lodgepole pine as the name implies. Visitors experience a sense of anticipation for experiences to come as they catch a brief glimpse of the distant peaks from the road corridor. While not along the Road, the Apgar Village area is often the first stop before the journey to Logan Pass. Here visitors are treated for the first time to the broad vistas of the lake and surrounding mountains from a village atmosphere.

**Segment 2: Largest Lake (Lake McDonald)** (7.9 miles - Apgar Loop Road to Lake McDonald Lodge). The Going-to-the-Sun Road parallels the eastern shore of Lake McDonald. The Road is characterized, for the majority of this segment, by a near-continual series of gentle curves along the south shore of the Lake. Because of the dense forest that grows on either side of the Road, travelers can generally catch only occasional glimpses of the Lake and Howe Ridge, which rises above the shore to the north. The ever changing colors and patterns created by the wind and clouds and sun on the Lake's brilliant surface can mesmerize the interested visitor. However, the Lake waters can change from tranquil to violent in minutes as the shifting and changeable winds move across its surface. The way in which the Road changes elevations as it winds along the Lake shore provides the opportunity to bring the visitor to the shoreline in some areas, while in other areas the visitor is above the water and presented with spectacular views across the surface of the Lake. There are numerous opportunities for visitors to stop and wade into the water, or simply photograph or view the outstanding scenery.

**Segment 3: Mountain Streams and Forests** (10.7 miles – Lake McDonald Lodge to Lower Haystack Creek). As the visitor moves along McDonald Creek, the restricted, tight valley bottom landscape provides short, dramatic, and often awe-inspiring views of the surrounding mountain slopes. Waterfalls tumble down the face of mountains across the valley, above the Creek to the west. To the east and north, rocky cliffs are visible through the trees. The Road travels generally close to the Creek, affording frequent views of the stream as it cascades over colorful rocks and a series of small waterfalls. Soon, the Garden Wall comes into view, in breathtaking splendor, framing the McDonald Creek Valley like a fortress, its rocky cliffs covered in soft colors that change with the seasons.

## Map of Going-to-the-Sun Road Landscape Segments

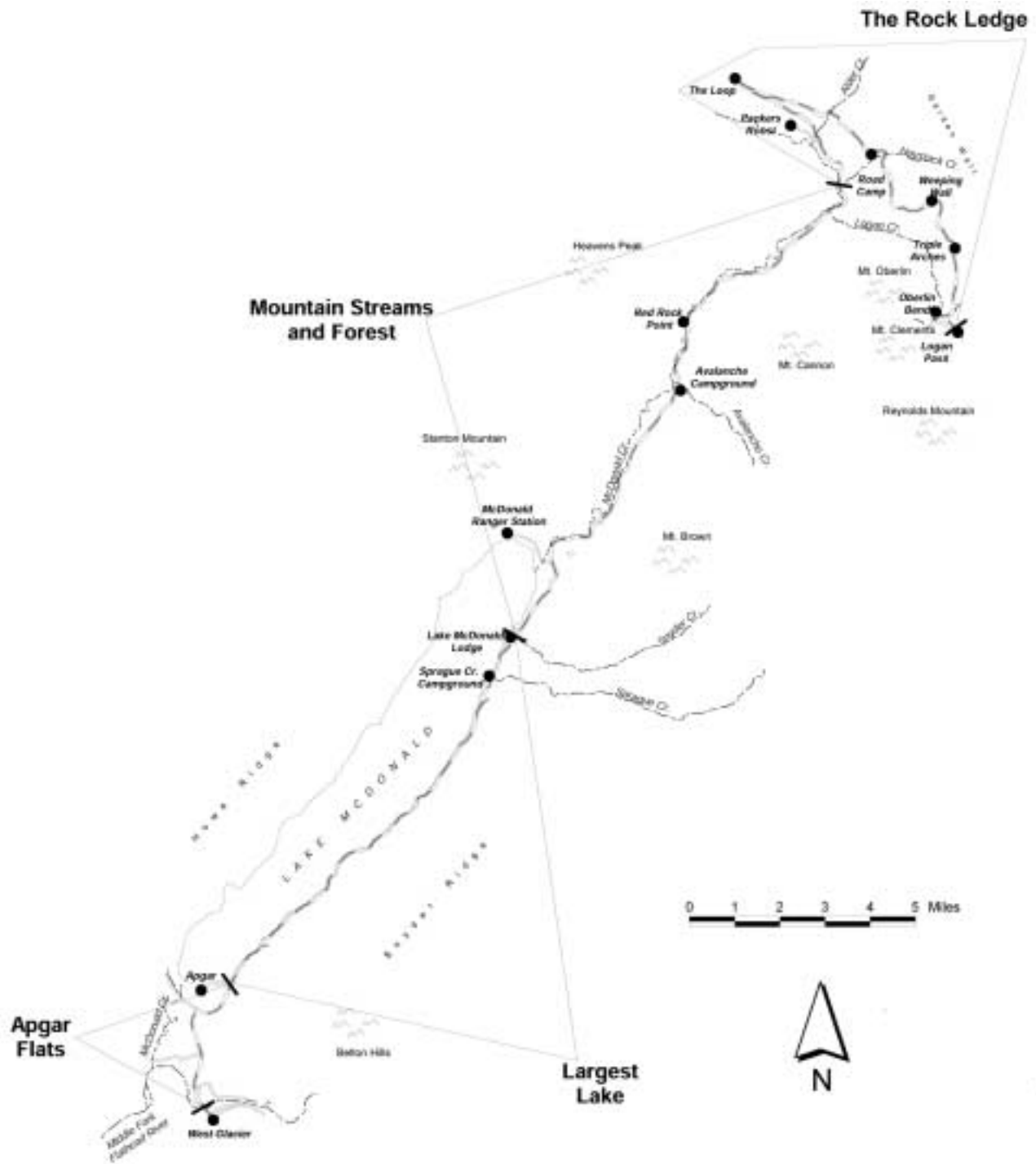


Figure 11:  
Going-to-the-Sun Road  
Landscape Segments  
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The forest in this sector, in age and size, is the most dramatic forest seen on the Road and is the eastern-most extent of the Pacific rain forest. The rainforest ecology, rushing mountain streams, and dramatic upward vistas along this segment of the Road offer viewing experiences unparalleled in the park.

While numerous recreational opportunities are available in this segment, one still feels drawn on by the anticipation of the experience to come as you head eastward and continue to gain elevation.

**Segment 4: The Rock Ledge.** (10.6 miles – Lower Haystack Creek to Logan Pass). This segment, along with the Timberline segment, forms the essence of the Going-to-the-Sun-Road driving experience. The roadway narrows as it climbs through the West Tunnel, beginning its traverse of the Garden Wall. After a sharp switchback at The Loop, the Road makes a grand ascent, providing spectacular views of Heaven's Peak and the U-shape valley that frames Logan Pass. This segment, at once beautiful and daunting, evokes a combination of emotions, rendering the driving experience unforgettable.

At the beginning of this segment the downhill side of the Road is forested, while rocky walls border the Road on the opposite side. At The Loop the Road bends back on itself heading up now at an unbroken grade to Logan Pass. Subalpine forests on both sides of the Road become less dense providing unobstructed views of the Pass and magnificent Bird Woman Falls. Further on the vegetation becomes even more sparse and the sheer cliffs more dramatic. All along this segment the elements of the historic Road's landmark design are clearly evident: rock retaining walls, guardwalls, and bridges. Frequent turnouts provide opportunities to stop and enjoy the landscape and take a break from the sometimes nerve-wracking drive. The segment ends at the alpine meadows of Logan Pass where the Road crosses the Continental Divide.

**Segment 5: Timberline** (2.7 miles – Logan Pass to Siyeh Bend). Between Logan Pass and Siyeh Creek, Going-to-the-Sun Road traverses the southern and eastern faces of Piegan Mountain. Reynolds Creek winds its way along the floor of the valley, a spectacular 1500 feet below. Aptly named, this segment stays at timberline while the east side of the park opens up below.

The roadway passes through the East Tunnel and emerges to a view directly ahead of Going-to-the-Sun Mountain, one of the most extraordinary peaks in the park. Waterfalls with origins high in the mountains drop over 1000 feet to the valley floor. At Siyeh Bend the Road descends below timberline in a sharp curve through a transition zone from the scrubby subalpine vegetation of Glacier's higher elevations to the forests of the park's east side.

**Segment 6: The Staircase** (9.2 miles – Siyeh Bend to Rising Sun). The Staircase segment is a gentler, more easily driven portion of the Road. As the Roadway curves downward through the lower tier of Siyeh Bend, the sense of being at the "top of the world" diminishes while the mountains rising to the south and east of St. Mary Lake dominate the landscape. From Jackson Glacier overlook it is possible to see the blue ice of the glacier that sits between the slopes of Mt. Jackson and Blackfoot Mountain. Beyond the overlook, the Road continues its gradual descent into the spruce-pine forest which offers occasional views of the mountains ahead and to the right. The forest has a varied pattern as it blends from somewhat open, with a meadow-like understory, to quite dense and virtually opaque. Because of the age and size of the trees, the Road has a pleasant and varied spatial character.

The Road joins St. Mary Lake and continues through increasingly level terrain to Sun-rift Gorge where the Road crosses Baring Creek with a spectacular stone arch bridge. Beyond Sun Point the arid climate associated with the eastern slopes of the Conti-

mental Divide and the Great Plains becomes more evident. Views across St. Mary Lake now become more predominant particularly at Dead Horse Point and Wild Goose Island Overlook. Throughout this segment, and culminating at the Golden Stairs just before Rising Sun, rock outcroppings rise abruptly from the road edge. This rock is beautifully weathered and often covered with tenacious native flowing plants.

**Segment 7: Two Dog Flats** (6.0 miles – Rising Sun to St. Mary). At Rising Sun the Road enters an environment similar to the vast prairie east of the park. This is a broad valley with St. Mary Lake at the bottom and the rugged mountains now in the background. Behind you, the long views toward the dramatic front range of the Rocky Mountains afford some of the most dramatic scenery found east of the continental divide. Dry prairie grasslands dominate the valley floor with groves of aspen trees on the mountain slopes. This abrupt transition between prairie and mountains provides a habitat ideal for wildlife. As the visitor enters this zone from the west, feelings change from high mountain exhilaration to pastoral, with a sense of accomplishment in traversing the park. It is a time to reflect on an unparalleled experience.

While perhaps unparalleled, the visitor experience along Going-to-the-Sun Road is not without flaws. There remains room for visitor use improvements. Options for these improvements are the focus of the remainder of this chapter, and Appendix E.

The Road itself is not typically crowded; however, certain visitor use areas along the Road do become overcrowded on a consistent basis. Use leveling (distributing use from overcrowded areas to underused areas) will therefore be a major theme in the following visitor use improvement discussions. The use leveling options proposed are those developed through group discussion: the park should use these to generate discussion and continue to look for other use leveling opportunities.

The remainder of this chapter is presented in two portions. The first portion addresses general topics such as biking, pullouts, comfort stations, etc. as they relate to Going-to-the-Sun Road, identifying existing issues and possible improvement options, and illustrating the point with specific examples. The landscape segments within which each of these general discussions are relevant are then summarized in a table. The second portion of this chapter addresses improvement options at specific visitor use locations along the Road, describing existing conditions and potential enhancements. Transportation system improvement options are addressed in a later chapter.

## Discussion and Treatment of General Visitor Use Experiences

### Scenery and Views

**Issue:** Vistas were part of the original intent of the Road and are the primary reason the vast majority of visitors come to the park. Tom Vint, the primary landscape engineer at the time of the Road's original construction, said, "the purpose of the Road is primarily for the use of tourists and is a means to display to them the park scenery." The original placement of Going-to-the Sun Road was carefully and deliberately chosen specifically to take advantage of expansive views.

Glacier has an approved guideline addressing the maintenance of vistas (see Appendix F). Road corridors and pullouts in the park are in need of vista clearing because vegetation blocks the visitor's view, diminishing the visitor experience the Road was intended to provide. This is especially prevalent on Camas Road and Going-to-the-Sun Road. Clearing of low roadside undergrowth is also needed in forested areas to open views into the forest.

#### Improvement Options:

- Clear vistas at pullouts
- Clear vistas along park roads
- Clear views into the forest
- Develop a plan to implement the existing park vista maintenance guideline

**Example:** The only location where a glacier is visible from the Road is Jackson Glacier Overlook. However, trees have grown up in front of this overlook to the point that only a narrow viewing corridor toward the Glacier remains. Visitors must line up, almost one behind the other, to see the intended view. This scenic viewing area is in desperate need of vista clearing.

### Orientation Opportunities

**Issue:** The next three issues are all interconnected and represent perhaps the most effective actions the park can take to enhance visitor experience: orientation, information, and interpretation opportunities. Proper orientation of the visitor to the attractions and geographic layout of the park is critical to providing a quality visitor

experience. The more the visitor knows about the park prior to beginning a visit, the better that visitor's experience will be.

Placement of self-use "orientation stations" at the park's entrances would provide an excellent opportunity for visitors. These stations could provide a large map of the area and information on what features and attractions to visit. The stations can also be equipped with interactive computer terminals to answer questions and provide recommendations about specific times of day to see attractions, avoid crowds, and enjoy the park experience. The stations would provide an opportunity for park staff to observe visitor needs and manage visitor movements within the park. The orientation stations will reduce pressure on the visitor centers by providing a quick, convenient option for park orientation.

Orientation can also begin prior to a visitor even entering the park. In fact, the Internet can bring information about the park right into the visitors' homes weeks before they ever reach the entry station. An improved park website could answer questions, suggest travel tips, list transit options, provide maps, and even chart a visitor's experience from beginning to end.

### **Improvement Options:**

- Develop and install self-use "orientation stations" at park entrances
- Provide pull-outs with information and orientation kiosks
- Provide pull-outs with electronic/interactive/real-time information and orientation signage
- Design and develop the west side Discovery Center
- Rehabilitate the St. Mary Visitor Center
- Provide advance interactive information on the park's web page

**Example:** An orientation station on the west side of the park just before, but in sight of, the T-intersection near Apgar. On the east side of the park, an orientation station could be located immediately before, or as a part of, the St. Mary Visitor Center.

### **Information Opportunities**

**Issue:** Information is critical to the overall visitor experience. How long will it take me to get to Logan Pass? Is it crowded there? Where can we best view wildlife? What waterfalls are the easiest to see? What areas should I see if I only have one day to visit the park? Where can I get lunch? Where is the next comfort station? Providing

the answers to questions like these will go a long way toward satisfying the visitor's needs.

There are many ways to get information to the visitor. One is the placement of appropriate signage. An information strategy at the new orientation stations and existing visitor centers should also be considered. Based on real-time data, responses to visitor questions can be modified based on current circumstances. Visitors could be given alternatives to popular destinations such as Logan Pass or Avalanche if those sites are experiencing overcrowding. Real-time information can be given to visitors with the help of an internal information conduit (e.g., placement of a fiber-optic cable under the length of the Going-to-the-Sun Road connecting changeable message signs with an information control center). These options are discussed in detail in *Chapter 4: Visitor Information Systems*.

#### Improvement Options:

- Design additional informational exhibits and media
- Improve signs (directional & informational)
- Develop Intelligent Transportation System (ITS) opportunities
- Provide real-time information
- Develop new media (audio, DVD)
- Design and develop west side Discovery Center
- Rehabilitate the St. Mary Visitor Center
- Develop handouts on rehabilitation projects
- Design additional personal services opportunities
- Expand TIS radio services at key locations along the Road
- Design and install portable kiosks/bulletin boards at key locations
- Expand Web page to address changes and provide real-time information
- Expand educational programs and outreach

#### Examples:

- **Traditional signage.** Parking for McDonald Falls is unclear to visitors and can be better defined through signage. Many people are under the impression that Sun-rift Gorge is that part of the creek seen from the road and are unaware of this unique geologic formation that can be viewed further up the creek after only a short walk. A simple roadside sign indicating the distance to the gorge would clear up this misperception. Some trailhead signs show trail lengths in kilometers only, creating the perception that the trail is longer than it actually is (Piegan Pass Trail at Siyeh Bend, for example).

- **Real-time signage.** Information can be transmitted to variable signage and to the orientation stations and visitor centers to give visitors the status of current capacities at attractions. This system could also show information such as the time until the next transit vehicle, the time it currently takes to travel the length of the road, or the number of parking spaces currently available at Logan Pass.

### Interpretation Opportunities

**Issue:** Orientation gives the visitor their initial perception of the park. Information answers their questions about where to go and what to see. Interpretation answers the “how” and “why” of what is experienced at the park. It tells the stories of the park and the region. What are those stories and where do they need to be told? These questions will be addressed in a Comprehensive Interpretive Plan (CIP) being developed in 2002.

#### Improvement Options:

- Move forward with Comprehensive Interpretative Plan to identify need for and develop new wayside exhibits
- Re-examine the stories told and where they are told
- Provide additional interpretive experience in other areas of the park to level use
- Design and develop west side Discovery Center
- Rehabilitate the St. Mary Visitor Center exhibits, media, and sales
- Develop new park film for the proposed Discovery Center and the St. Mary Visitor Center
- Evaluate and rehabilitate seating at interpretive areas through CIP process
- Participate in special events and regional partnering to level use
- Expand programs and outreach opportunities
- Design additional personal services opportunities

**Examples:** The interpretive sign portion of the 1993 Wayside Exhibit Plan is now complete. Additional wayside exhibits on Going-to-the-Sun Road that should be considered include:

- Camp 9 – Road construction workers’ camp.
- Why is the Road named “Going-to-the-Sun” (to be exhibited near Going-to-the-Sun Mountain)?
- Why is “Heavy Runner Mountain” so named? Who was he and what do we know about him?

- Information on the historic network of lodges and the historic transportation system within the park (at Sun Point).
- Alpine Ecosystem discussed on lower sections of the Road to relieve pressure at Logan Pass.

### Comfort Stations

**Issue:** Comfort stations on the Going-to-the-Sun Road are in relatively short supply and are typically located in congested areas. A map of existing comfort stations is provided as Figure 5 in Chapter 1.

#### Improvement Options:

- Rehabilitate existing comfort stations
- Emphasize comfort stations on lower elevations
- Maintain and supplement comfort stations where demand is high
- Place comfort stations where use is low, but parking is available, to level demand
- Upgrade to SSTs and to provide ADA accessibility
- Integrate orientation, information, and interpretation opportunities
- Place locator signs on road
- Provide maps locating comfort stations in informational material
- Develop standards for comfort stations

**Example:** A comfort station at a large pullout in the Mountain Streams and Forests segment can help reduce visitor use pressures at the Loop and Avalanche. Placement of comfort stations at Big Bend and Siyeh Bend can help to relieve parking demand at Logan Pass.

### Parking

**Issue:** Parking is provided at points of interest along Going-to-the-Sun Road. However, parking spaces, especially at Avalanche, the Loop, Logan Pass, and Sunrift Gorge are at a premium during peak periods. It is premature to consider additional parking without first determining the appropriate carrying capacity of these points of interest. Included in Appendix C is a listing of current parking areas along the Road and their capacities.

There are some areas where parking could be placed without significantly impacting the resource. With the use of interactive signage, real-time parking status at congested areas can be relayed to visitors on the lower sections of the Road. Visitors can also be informed about the parking situation at areas like Logan Pass when using the orientation stations and visitor centers.

### Improvement Options:

- Provide real-time parking information on Logan Pass & other congested areas at the orientation stations, visitor centers, and lower sections of the Road
- Limit or eliminate parking where resources are threatened or safety is an issue
- Separate pedestrian circulation from vehicle circulation
- Encourage head-in parking
- Provide additional parking areas

**Example:** The St. Mary Falls trailhead is an example of areas where parking could be improved to allow for head-in parking, and in so doing alleviate existing safety problems related to traffic backing into the Road (Figure 12).

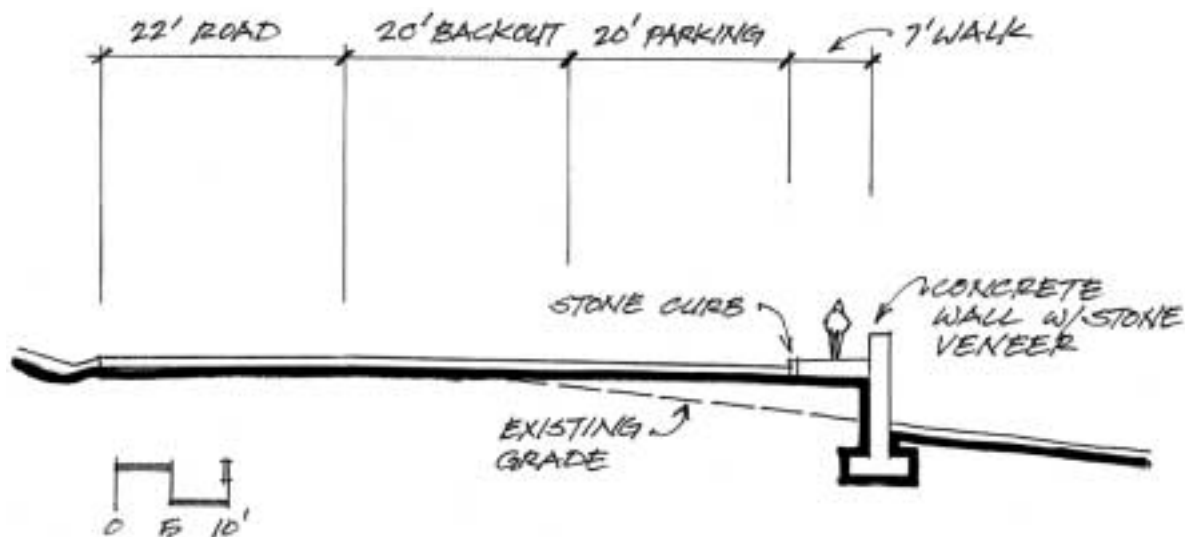


Figure 12:  
Illustration of Improved  
Head-in Parking

## Pullouts

**Issue:** There are many pullouts located along the Road (see Appendix C for a complete listing). The main function of these pullouts is to provide a short-duration opportunity for visitors to stop and view vistas, attractions, and interpretive signage. Pullouts also allow slower vehicles to pull over so that others can pass.

Pullouts also some times become focal points for unintended uses such as climbing and hiking. Some of the problem areas along Lake McDonald were removed during repaving operations in the 1990's. Some pullouts are on the opposite side of the road from park attractions (the Wild Goose Island vista point is one example), creating a hazard for pedestrians and traffic on the main roadway. Finally, some pullout areas have not been designated or constructed as such, but have been created over time as "social pullouts" by visitors who pull off the road in these unregulated areas.

### Improvement Options:

- Add pullouts with level access to the slow-moving/serene portion of McDonald Creek
- Clear vistas at scenic pullouts
- Add additional slow-moving vehicle pullouts
- Formalize and/or remove existing social pullouts
- Correct and/or remove unsafe pullouts



Visitors use a pullout along Going-to-the-Sun Road, and park across the road as well.

### Examples:

- The Mountain Streams and Forests segment could use an additional pullout to provide access to the water. There is a section located at Haystack Creek where a pullout could be placed with little disturbance and would provide access to a quiet, secluded spot on the river with great views and a rocky shore. This area could potentially be made fully ADA accessible. Parking for three to five vehicles would be recommended.
- Many of the pullouts along Camas Road and along Going-to-the-Sun Road are in need of vista clearing.



The Mountain Streams and Forests segment offers opportunities for pullout areas with secluded access to the water.

## Biking

**Issue:** Glacier is a place where an outstanding opportunity for biking exists. However, when bikers arrive at Glacier, they are faced with limited bike path opportunities and bike restrictions on Going-to-the-Sun Road. Many people see biking as an activity ideally suited for Glacier and biking could also be used as an alternative to vehicle use on the Road during designated time periods.

### Improvement Options:

- Provide additional bike paths in the park with the Apgar Village area as a priority
- Consider widening some park roads to provide bike lanes
- Encourage biking on Camas Road
- Place auto restrictions on Going-to-the-Sun Road during certain times to allow bicycles only
- Provide public information and maps on existing bike opportunities
- Provide bike racks & lockers
- Provide bike racks on park shuttles and regional shuttles
- Encourage multimodal opportunities

### Examples:

- An existing trail along the northwest side of Lake McDonald could be converted into a bike path. This path would run approximately 9 miles from Apgar Village to Lake McDonald Lodge. The proposed alignment for this path locates it within a proposed wilderness area. Modification to the wilderness area boundary would therefore be required.
- Bicycle lanes could be placed along the lower sections of Going-to-the-Sun Road. These areas would be from Apgar Village to Avalanche and from St. Mary to Sun Point. The National Historic Landmark designation of Going-to-the-Sun Road and treatments recommended in the *Cultural Landscape Report* may prevent widening the Road to provide bicycle lanes. The park's GMP states that the Road will not be widened.
- Automobile restrictions could be placed on Going-to-the-Sun Road to allow for bicycle-only periods. Such a restriction perhaps makes the most sense on Sunday mornings.

### Access to Forest and Water

**Issue:** Forest and water are two of the defining characteristics of Glacier. Although access to these features is available in the park, it is generally informal, sometimes unsafe, and at certain locations has resulted in resource damage.

#### Improvement Options:

- Provide additional opportunities at low elevations for safe access to forest and water
- Provide new easy trail through the forest on west side to reduce use at Avalanche
- Provide short walks to “discovered” features
- Provide ADA accessibility to water

**Example:** The existing pullout at Red Rock Point along McDonald Creek experiences relatively high use. A stand of cedars between the pullout and the stream is showing signs of overuse. A ramp and boardwalk could be placed at this pullout to provide safe, hardened, barrier-free access to the creek, while at the same time reducing resource damage.

**Below:** A stand of cedars along McDonald Creek at Red Rock Point shows signs of overuse

**Right:** Visitors could access McDonald Creek using a ramp and boardwalk.



## Picnicking

**Issue:** Picnicking facilities are located throughout the park. Some of the picnic areas along the Road provide a better visitor experience than others.

### Improvement Options:

- Provide additional picnic areas
- Upgrade existing picnic area facilities
- Provide ADA-accessible facilities
- Relocate existing facilities, i.e. Avalanche and Sun Point
- Develop park standards for picnic sites

**Example:** Sun Point is an area where picnic sites can be improved. Currently the picnic tables are distributed along the side of the parking area. Picnicking can be consolidated and removed from the parking area to provide for a better experience.

## Camping

**Issue:** Camping is a popular activity in the park. Figure 6 in Chapter 1 shows the location of existing camping areas along the Road. Some campgrounds, such as Avalanche and Sprague Creek, are consistently full; others contain vacancies even during the peak season.

### Improvement Options:

- Provide showers at campgrounds
- Upgrade campgrounds and associated comfort stations
- Reduce density within campgrounds, i.e. larger sites
- Provide ADA-accessible sites
- Provide bear-proof food lockers
- Provide bike racks
- Separate tent camping from large vehicle camping
- Develop park standards for camp sites

**Example:** The existing unused building at Avalanche (former ranger quarters located northwest of the campground) could be converted to provide showers for this campground.

### Children's Activities and Services

**Issue:** Very young children removed from their normal routine sometimes find days of travel difficult. Providing something routine like a play area, or something unfamiliar but focused on the interests and abilities of young children could help children enjoy the park more, improving the visitor experience for the entire family.

#### Improvement Options:

- Design and develop a children's section in the west side Discovery Center and rehabilitated St. Mary Visitor Center
- Design and install children's discovery trails (one on east side and one on west side)
- Add a children's playground area at the west side Discovery Center and St. Mary Visitor Center
- Expand children's interpretive programs
- Provide family-friendly bike trails
- Identify nearby licensed daycare providers

**Example:** St. Mary Visitor Center and the Discovery Center could be enhanced to provide an improved children's experience.

### Transportation Connections

**Issue:** Before visitors will consider leaving their cars at home, a continuous inter-modal transportation system needs to be developed. If a visitor wants to bicycle from Apgar Campground to Avalanche to hike a trail, but finds that bicycles are prohibited along the length of Lake McDonald, the visitor will take a private vehicle, contributing to the parking and safety problems at Avalanche. A form of shuttle or other means of alternative transportation connection for seamless park access should be provided.

#### Improvement Options:

- Promote historic exploration of the park by horse, bicycle, and red bus; provide parking for these activities away from congested areas
- Provide information/orientation on the benefits of and options for alternative transportation
- Create more shuttle opportunities, so hikers on one-way trails do not need two cars

- Implement a comprehensive transit system (see *Chapter 3: Transportation System Options*)
- Coordinate with regional transportation providers for convenient and affordable shuttle service from the airport and surrounding communities to connection points for park transit
- Expand boat shuttles for hikers and bikers
- Institute a water shuttle from Apgar to Lake McDonald Lodge for hikers, bikers, and other visitors to experience
- Expand the designated bicycle network, linking into developed areas and trail-heads
- Install bicycle racks on buses and boats
- Develop a bicycle trail linking the train station/West Glacier to Fish Creek Campground, Apgar Village, and Apgar Campground
- Designate a bicycle route along Camas Road to the North Fork of the Flathead River

**Example:** If a family wants to boat from the launch at Apgar Village to Quarter Circle Bridge, they might traditionally take two cars, parking one at the bridge and leaving one at Apgar for a couple of hours after putting the boat in the water. This same family could put the boat in the water, leave the car at the bridge, and bike back to Apgar to start the boat journey. The family enjoys experiencing Apgar Village, biking through the woods on a safe, designated trail, and boating the lake and creek. Meanwhile, a parking space at Apgar Village that might have been occupied for two hours can now accommodate four other cars staying for 30 minutes each.

## Safety

**Issue:** Visitor safety is the primary concern of the park. All reasonable efforts must be made to eliminate unnecessary risks and educate visitors about the inherent dangers of Glacier.

### Improvement Options:

- Redesign parking areas so they are always located on the same side of the road as the visitor attraction
- Design improved pedestrian crosswalks
- Design and install signs and handouts at entry stations to yield to pedestrians in designated crosswalks
- Increase enforcement of crosswalks and pedestrian issues

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- Provide information on hazards in the park, i.e. falling rocks, slippery rocks and cold water in streams, etc.
- Harden trails near hazards
- Provide separate/designated bike facilities

**Example:** Approximately half of the parking for the Wild Goose Island Overlook is located on the opposite side of the road from the overlook. Pedestrians cross the road in a location where safe sight-distance is not provided. The road should be shifted slightly to accommodate all parking on the proper side of the road, eliminating the safety hazard.

Table 8 summarizes the general visitor use topics just discussed with regard to the landscape segments within which the improvement options best fit.

**Table 8: Summary of General Visitor Use Improvements by Landscape Segment**

Landscape Segment	Scenery and Views	Visitor Orientation	Visitor Information	Interpretation	Comfort Stations	Parking	Picnics	Biking	Access to Forest and Streams	Picnicking	Camping	Children's Activities and Services	Transportation Connections	Safety
Apgar Flats	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Largest Lake	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Mt. Streams and Forest	•		•	•	•	•	•	•	•	•	•	•	•	•
The Rock Ledge	•		•	•	•	•	•	•					•	•
Timberline			•	•	•	•	•	•					•	•
The Staircase	•		•	•	•	•	•	•	•	•			•	•
Two Dogs Flats	•	•	•	•	•	•	•	•	•	•	•	•	•	•

## Improvement Options at Specific Visitor Use Locations Along the Road

### Avalanche

The Avalanche area is currently one of the most congested areas in Glacier. It is the focal point for a number of visitor activities, and as such parking demand at Avalanche typically exceeds available parking capacity. This frequently results in vehicles being parked in inappropriate areas. Parking is provided on both sides of Going-to-the-Sun Road, which results in potentially dangerous conflicts between vehicles and pedestrians crossing the road. Reduced speed limits, advance “Congested Area” warning signs, and rumble strips in the pavement are in place in an attempt to address this safety concern.

The Avalanche area was the subject of a significant planning effort recently undertaken by Glacier park staff. This effort included the consideration of thirteen design alternatives, preparation of an Environmental Assessment (EA), and selection of a preferred alternative for safety and functional improvements. However, a court challenge that resulted in direction from the presiding judge that an Environmental Impact Statement (EIS) be prepared has halted progress of the park’s improvement plans for this location.

**Existing Facilities.** The Avalanche area is the focal point of no less than six significant visitor activities.

- **Camping.** Avalanche campground provides 87 campsites, 50 of which can accommodate vehicles up to 26 feet long. Campground facilities include flush toilets, a disposal station, and hiker/biker sites. This is a very popular campground which always fills up during the peak season. Parking for the campground is provided within the campground area at each individual campsite.
- **Picnicking.** Avalanche provides a very pleasant picnicking experience. Shaded picnic tables are available with McDonald Creek nearby. Drinking water is provided at standpipes within the picnic area. Parking for the picnic area is convenient and sufficient for the number of picnic sites available; however, this parking is typically overtaken by hikers in the morning before drivers arrive to use the picnic sites.

- **Accessible Trail.** The Trail of the Cedars is a very popular nature trail that is also ADA accessible. This trail is level, provides a hardened surface, and loops back to its starting point, making it very popular with a wide range of visitors including older visitors, families with small children, those not interested in a long hike, and the physically challenged. This trail is also written up and recommended in most tourist information about the park. The trail wanders through an old growth cedar and hemlock forest providing educational exhibits along the way. This trail receives a great deal of visitor use. No actual use numbers (counts) are available.
- **Day Use Trail.** The Avalanche Lake Trail is another very popular trail with its starting point at the Avalanche parking area. This easily traversed trail is approximately two miles long through a dense forest and terminates at Avalanche Lake. This is the only cirque lake in Glacier accessible by a short, easy hike, and therefore is very popular with visitors. Great views of the continental divide and multiple, high waterfall cascades open up to the hiker once they reach Avalanche Lake. This is not a loop trail and hikers return the way they entered.
- **Oversized Vehicle Turnaround.** Due to the narrow, winding nature of Going-to-the-Sun Road, vehicles over twenty-one feet in length or eight feet in width entering the park from the west are not allowed past Avalanche. Oversize vehicles are required to turn around or park at this point. However, accommodations are not made in the area to conveniently park or turn around a large vehicle. Due to this lack of accommodation, drivers attempt to make use of the picnic or campground roads to loop around, or they back into Going-to-the-Sun Road traffic. None of these alternatives is attractive and some have the potential to be dangerous. This lack of accommodation of oversized vehicles is a significant shortcoming of the park's vehicle length restriction policy.
- **Comfort Station.** A sign at the road edge indicates to drivers the presence of a comfort station within the picnic area.

In addition, access to McDonald Creek is available through the picnic area, but this activity is very limited in scope.

**Improvement Options: Use Leveling.** One of the overriding themes of visitor use improvements at Glacier must be spreading out visitor activity over the length of the Road, as well as across the developed portions of the entire park. The need for this is very evident at Avalanche. The six activities described above are more than can be properly accommodated in the available space.

Opportunities to disperse some of the existing use have been considered. A few options are as follows:

- Relocate the oversized vehicle turnaround out of the Avalanche area. Possible alternate locations include Apgar, Lake McDonald Lodge, and Logan Pit. The Logan Pit location would seem to hold the most promise because it has room for both oversized vehicle parking and a loop turn-around in an already disturbed area without interfering with existing visitor uses (see Figure 13). (Interference with existing uses is likely at Apgar and Lake McDonald.) Logan Pit is still below the start of the narrow, steep portion of the Road and would offer RV drivers a chance to see a greater portion of the road before having to turn back. Use of Logan Pit for this purpose would probably have to wait until after rehabilitation of the west side of the Going-to-the-Sun Road as this area will likely be the primary contractor staging area during west-side rehabilitation. Continued small-scale use of this area for park maintenance and construction staging can continue with room available for both material storage and contractor personnel parking.

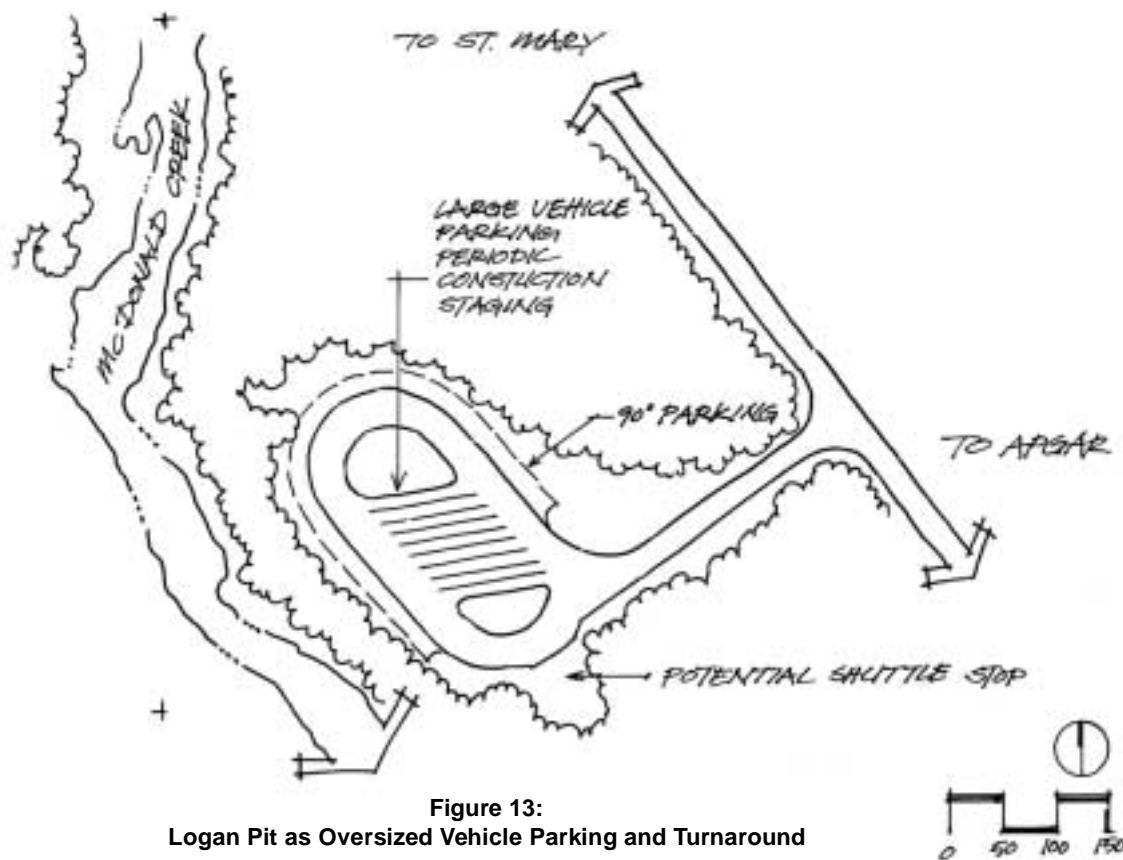


Figure 13:  
Logan Pit as Oversized Vehicle Parking and Turnaround

- Provide a comfort station at one of the little-used pullouts east of Avalanche to intercept westbound traffic before it reaches the Avalanche area.
- Build a new trail through the cedar and hemlock forest to provide a parallel experience to the Trail of the Cedars. A possible suitable location was identified just east of the Moose Country access road.
- Build additional fully accessible trails and short loop trails for those interested in these types of easy hikes. Possibilities include the area around Apgar Village and the St. Mary Visitor Center, the abandoned road alignment across the Belton Bridge in West Glacier, and off Camas Road. Also, promote the other existing fully accessible trail in the park located in the Two Medicine area.
- Vista clearing along Lake McDonald, McDonald Creek, and Camas Road could result in less visitor pressure at Avalanche as visitors spend more of their trip in these other areas.

**Improvement Opportunities: Physical Improvements.** In addition to the use leveling options listed above, physical improvements to the Avalanche area should be considered to better accommodate and/or deal with visitor demand. Three improvement options have been identified for this area, as illustrated on the following pages.

- Consolidated Parking and No Picnicking** (Figure 14). This improvement would consolidate all parking on one side of the road and remove the picnicking feature from the area, thereby relieving some of the visitor demand. The number of parking spaces would be about five less than currently exists, but pedestrian/vehicle conflicts would be greatly reduced.

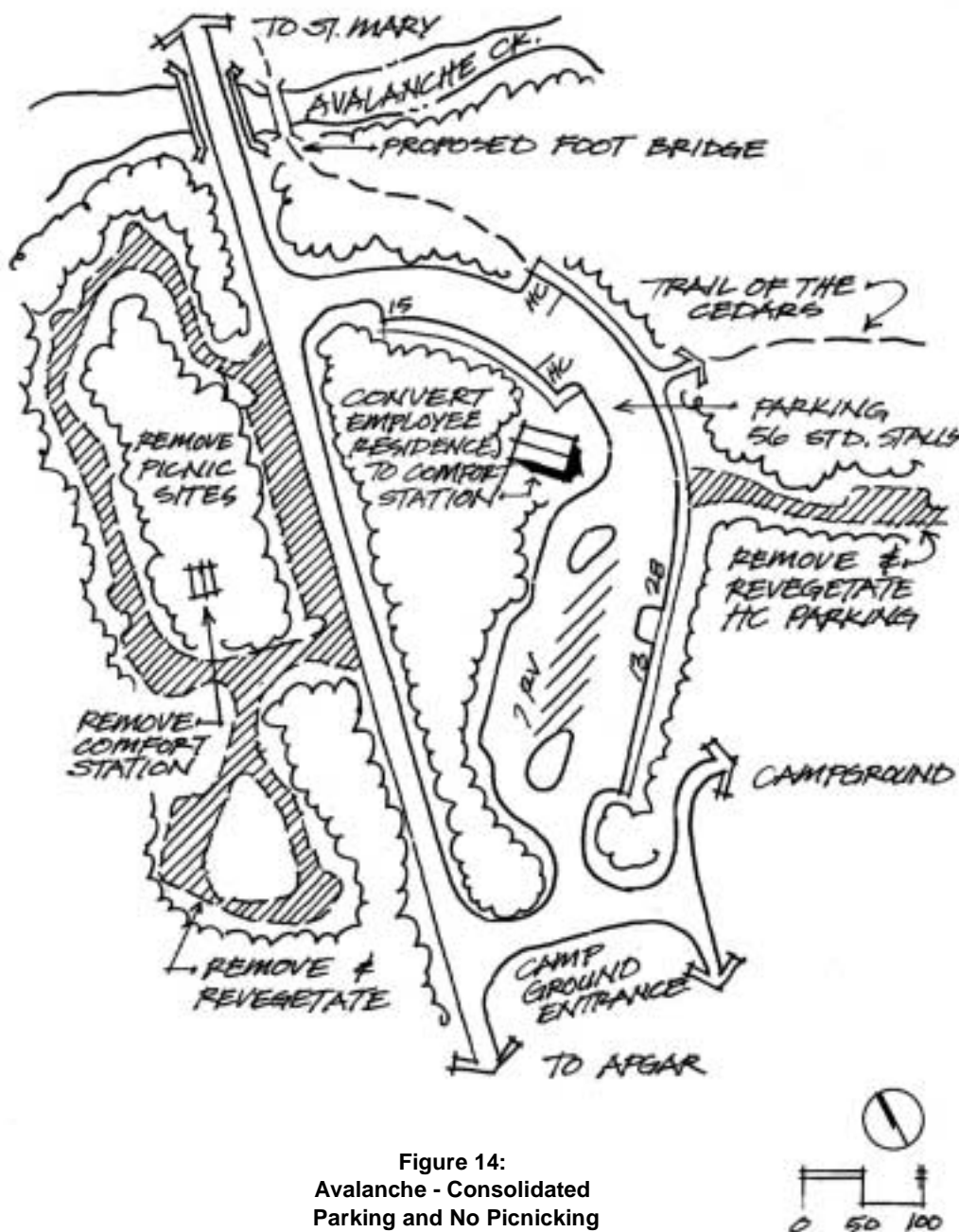


Figure 14:  
Avalanche - Consolidated  
Parking and No Picnicking

- Consolidated Parking and Walk-in Picnicking** (Figure 15). This is similar to the previous alternative, but perpetuates the picnic area with walk-in access only. Also, the oversized vehicle parking spaces have been converted to passenger car parking. In this scenario oversized vehicle parking and turn around is assumed to have been moved to a different location as discussed above under use leveling.

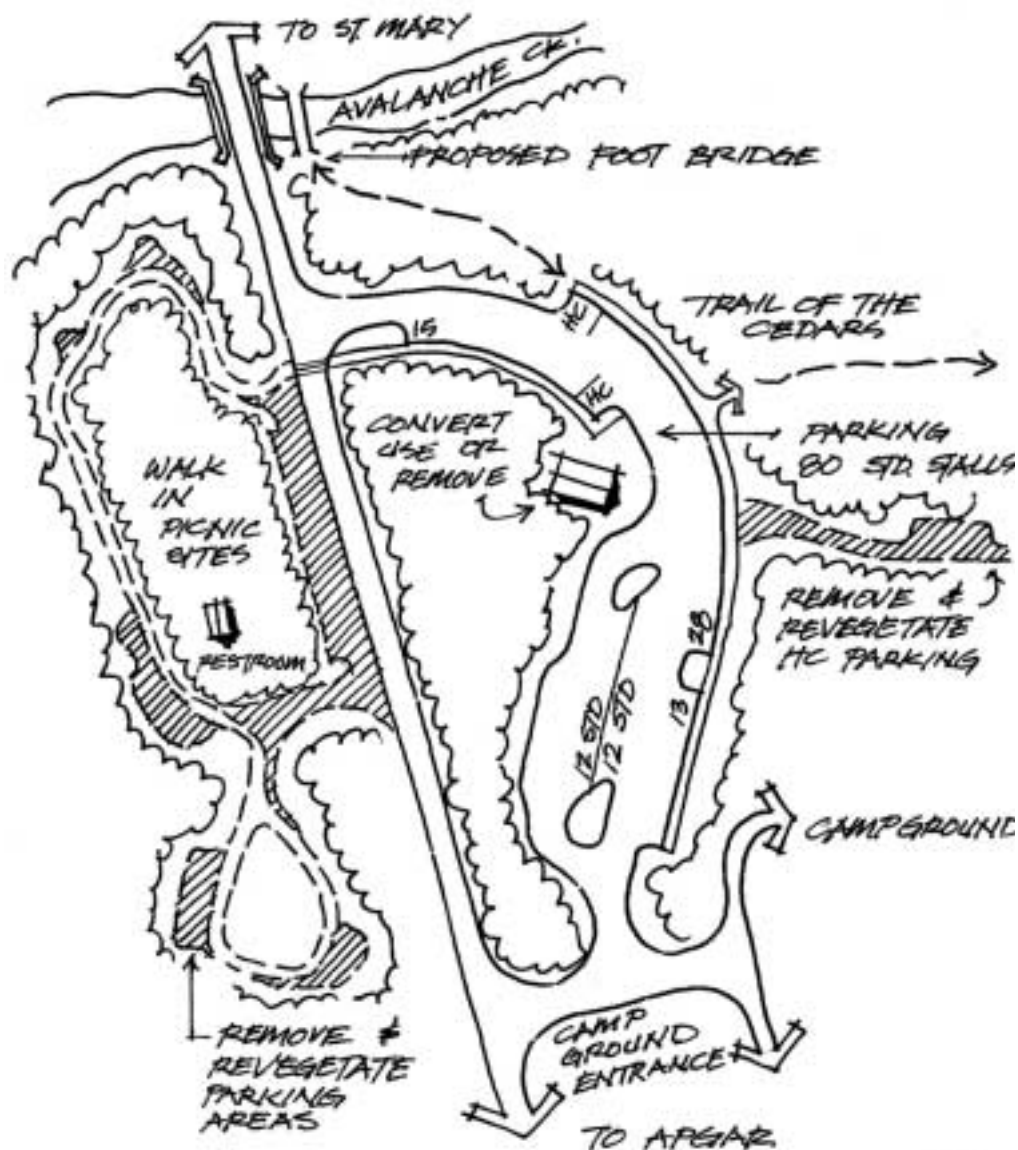
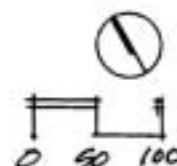


Figure 15:  
Avalanche - Consolidated Parking  
and Walk-in Picnicking



- As-is, with Some Picnicking Converted to Parking** (Figure 16). This improvement recognizes the fact that most of the picnic area is not currently used for picnicking due to the overflow of hiker parking demand. Therefore, all but the most prime picnic locations (those along McDonald Creek) are converted to parking. A pedestrian bridge is shown crossing over the Road.

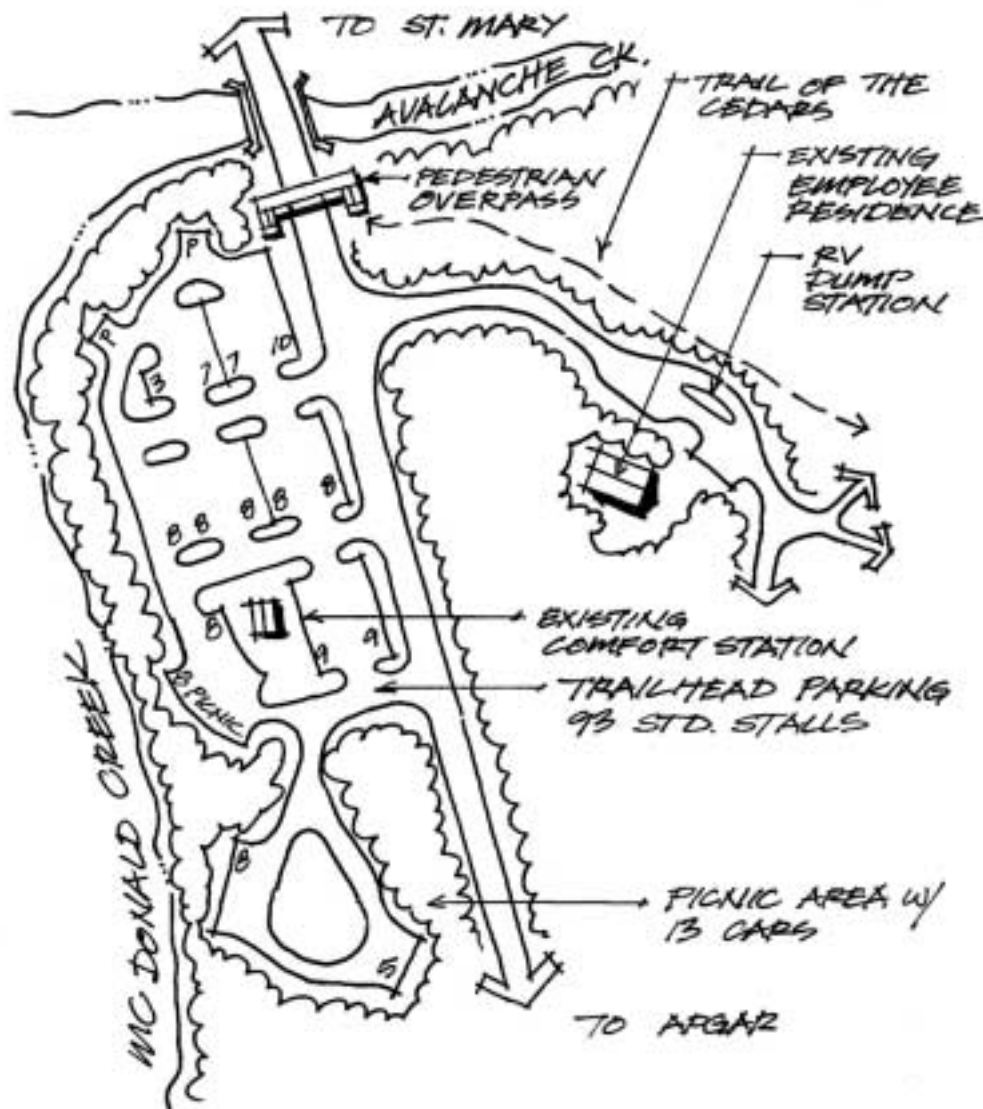


Figure 16:  
Avalanche - As-is,  
with Some Picnicking  
Converted to Parking



**Improvement Opportunities: Transit.** A shuttle stop for the current transit shuttle exists within the Avalanche picnic area. If an improved shuttle system is adopted by the park, then an improved shuttle stop would be added in the Avalanche area. Increased transit usage could result in increased visitor numbers at Avalanche as the parking spaces remain full and the shuttle brings in even more visitors than it does today. This could have a negative impact on trail and resource capacities.

### The Loop

**Existing Facilities.** The Loop is the only switchback on the Going-to-the-Sun Road. Vistas from The Loop parking area are now primarily blocked by vegetation, but were once some of the most sought-after views from the Road of the McDonald Creek valley, the Livingston range, and the Logan Pass area. The Loop area currently provides limited parking, an interpretive exhibit, a shuttle pull-off, and a trailhead. The trailhead is the bottom end of a popular trail from Logan Pass (the Highline Trail). Many hikers leave a vehicle at The Loop and drive up to start their hike at Logan Pass to take advantage of the 2,350 feet of vertical descent from the pass down to The Loop. While making for a great hike, this practice exacerbates the parking shortage at The Loop. Parking at The Loop is typically full during peak periods, making it impossible (or unsafe) for many visitors to stop.

Pedestrian safety is also a significant concern at The Loop, as the trailhead is located across the road from the parking area. This requires pedestrians to cross the road where sight distance is extremely limited by the tight bend in the road. Stairs from The Loop parking area down to road level are located at a point that is not opposite the trailhead. This further compromises pedestrian safety, requiring hikers to either walk along the edge of the road through a blind curve (if they use the stairs), or try to scramble up or down a steep hillside between the road and the parking area (if they choose to access road level directly opposite the trailhead).

Pedestrians trying to take in the view also sometimes stand in and along the edge of the Road below The Loop, opposite the stone stairs.

**Improvement Opportunities: Use Leveling.** Opportunities to disperse some existing use from The Loop have been considered. Options are as follows:

- **Clearing of existing vistas** along Lake McDonald, McDonald Creek, and Camas Road could result in less visitor pressure at The Loop as visitors spend more of their trip in these other areas.
- **Relocate the trailhead for the Highline Trail** away from The Loop and to Packers Roost, thereby reducing visitor activity and parking demand at The Loop and significantly improving pedestrian safety. This would require improving the Packers Roost intersection with Going-to-the-Sun Road and would add 540 feet of vertical descent and approximately one mile to the trail. The trail to Packers Roost already exists so a new trail would not have to be cut. The trail spur to The Loop would be revegetated.

**Improvement Opportunities: Physical Improvements.** In addition to the use leveling options listed above, physical improvements to The Loop should be considered. Improvement options identified for this area as follows:

- **Re-establish Historic Viewing Area and Formalize Parking** (Figure 17). This improvement would better control parking within the center of The Loop and re-

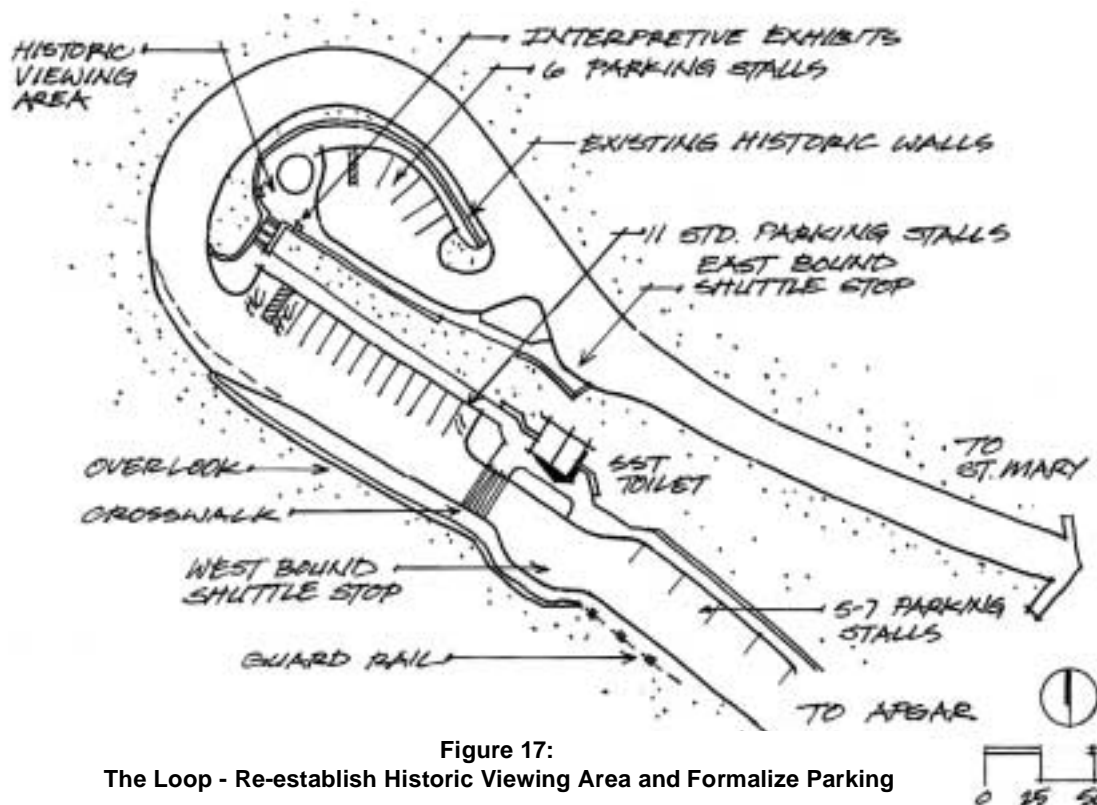


Figure 17:  
The Loop - Re-establish Historic Viewing Area and Formalize Parking

establish the viewing area and interpretive area for which The Loop was historically known. This results in a loss of several existing parking spaces within the center of The Loop. Parking is formalized and a comfort station installed along the inside of the roadway below The Loop. The comfort station results in the loss of some existing parking spaces. Finally, the pedestrian overlook along the outside of the lower road is formalized to provide a safe area to take in the views that have been reestablished by vista clearing. Separate eastbound and westbound transit stops are also formalized.

- **Transit Emphasis** (Figure 18). This improvement is an option should the park decide to place a very significant emphasis on transit. Separate eastbound and westbound shuttle stops with shelters are constructed and all parking within the center of The Loop is converted to pedestrian space for viewing and interpretation. A comfort station, formalized parking, and formalized viewing area are constructed along the lower roadway.

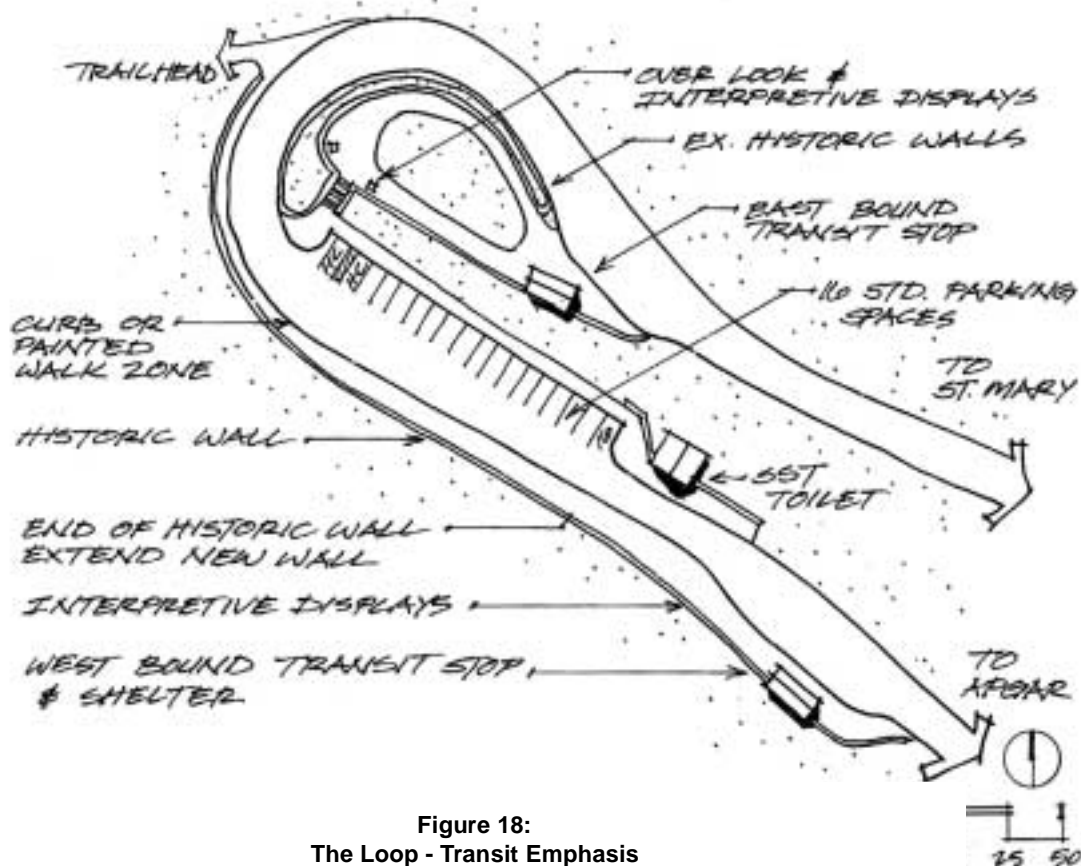


Figure 18:  
The Loop - Transit Emphasis

- In addition to moving the trailhead to Packers Roost as discussed above under use leveling, consideration should be given to moving the trailhead either opposite the existing stairs (with a walkway to the start of the trail either striped on the pavement or cantilevered on the outside of the wall) or up the hill a short distance to where improved sight distance makes crossing the Road less dangerous.

Whether or not one of the above options is implemented, vista clearing should be undertaken at The Loop to restore historic views and enhance the visitor experience.

**Improvement Opportunities: Transit.** A shuttle stop currently exists in The Loop parking area. If an improved shuttle system is adopted by the park, then improved shuttle stops would be added at The Loop. Improved, regular, and more frequent transit service may eliminate the need for hikers to leave a shuttle car parked at The Loop, thereby improving the parking situation.

## Big Bend

**Existing Facilities.** Big Bend is a bend in the Going-to-the-Sun Road with very wide flat shoulders and great views. It is the only large, flat area in the Rock Ledge segment of the Road. This area is subject to avalanches in the winter and typically is one of the areas requiring substantial snow removal efforts for spring road opening. Existing improvements are limited to undefined parking areas on both sides of the road and two removable interpretive signs. Pedestrian safety is not considered a problem in this area due to the substantial sight distance available in both directions for pedestrians crossing the Road.

**Improvement Opportunities: Use Leveling.** Due to its fairly close proximity to Logan Pass, the Big Bend area is the best possible location along Going-to-the-Sun Road to siphon off visitor use pressure from the pass. Opportunities to attract additional visitor use are as follows:

- Install a comfort station. This is the last likely place west of Logan Pass for a comfort station. If visitors use the comfort station here where there is currently plenty of parking, they will likely not have to use the comfort station at Logan Pass, shortening their stay at the Pass, or eliminating it altogether. (See Logan Pass section below for a discussion of the parking shortage at that location.) The Big Bend comfort station should be attractive and large enough to meet the required demand, perhaps something along the lines of the SST (sweet-smelling toilet) that exists at Grizzly Point on the road's east side. Because of the ava-

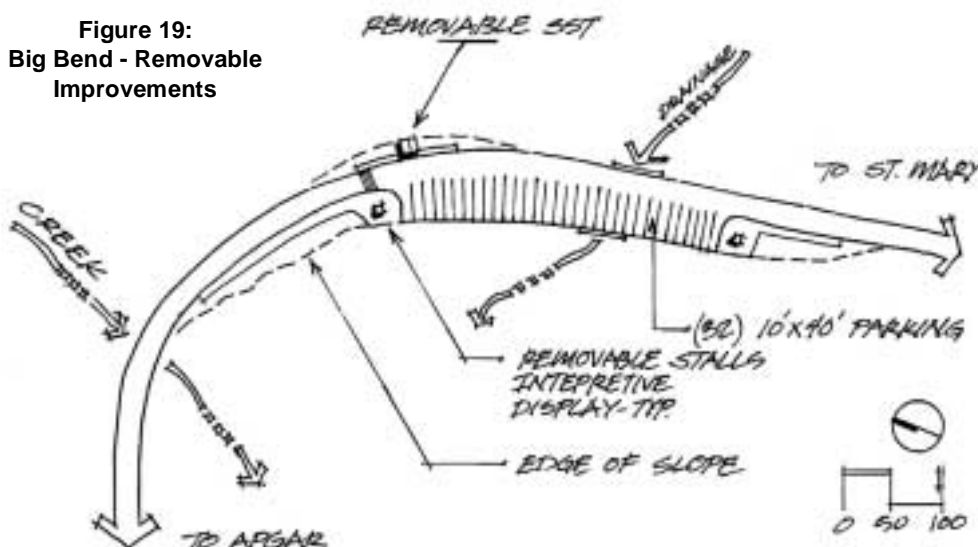
lanche hazard that exists at Big Bend, the comfort station should be removable. If removable, the comfort station could be relocated during the winter to the parking lot at Lake McDonald lodge where vehicle parking occurs for winter (non-motorized) use of the road. A possible alternative to a removable comfort station would be to build the station into the hillside either above or below the roadway, or in the shadow of the cliff, making it less susceptible to avalanche damage.

- Provide parking, pedestrian, and vista areas that are formalized and inviting, and improve the interpretive signing. This would attract more drivers to stop than does the current condition which is essentially little more than a wide spot in the pavement. Again, the theory is that, if drivers stop here to enjoy the view, they will not stop or will spend less time at Logan Pass and perhaps also at Oberlin Bend (which, though not addressed directly in this study because improvements to it were only recently completed, experiences overcrowded parking conditions).

**Improvement Opportunities: Physical Improvements.** To facilitate the use leveling options listed above, physical improvements to Big Bend should be considered. Improvement options identified for this area are as follows:

- **Removable Improvements** (Figure 19). Because of the avalanche hazard that exists at this location, the Park Service may consider installing a removable comfort station and removable orientation/interpretive signs.

Figure 19:  
Big Bend - Removable  
Improvements



- Permanent improvements** (Figure 20) This option shows a permanent comfort station and more elaborate pedestrian facilities. A retaining wall is built to provide room for head-in parking and a comfortable space between the parked cars and the pedestrian vista area. With this retaining wall in place, the area below the road can be cleaned up, drainage improvements made, and social trails to the level area below the road formalized. All of this would serve to make this a better and more attractive visitor stop. Interpretive signs would probably still be removable.

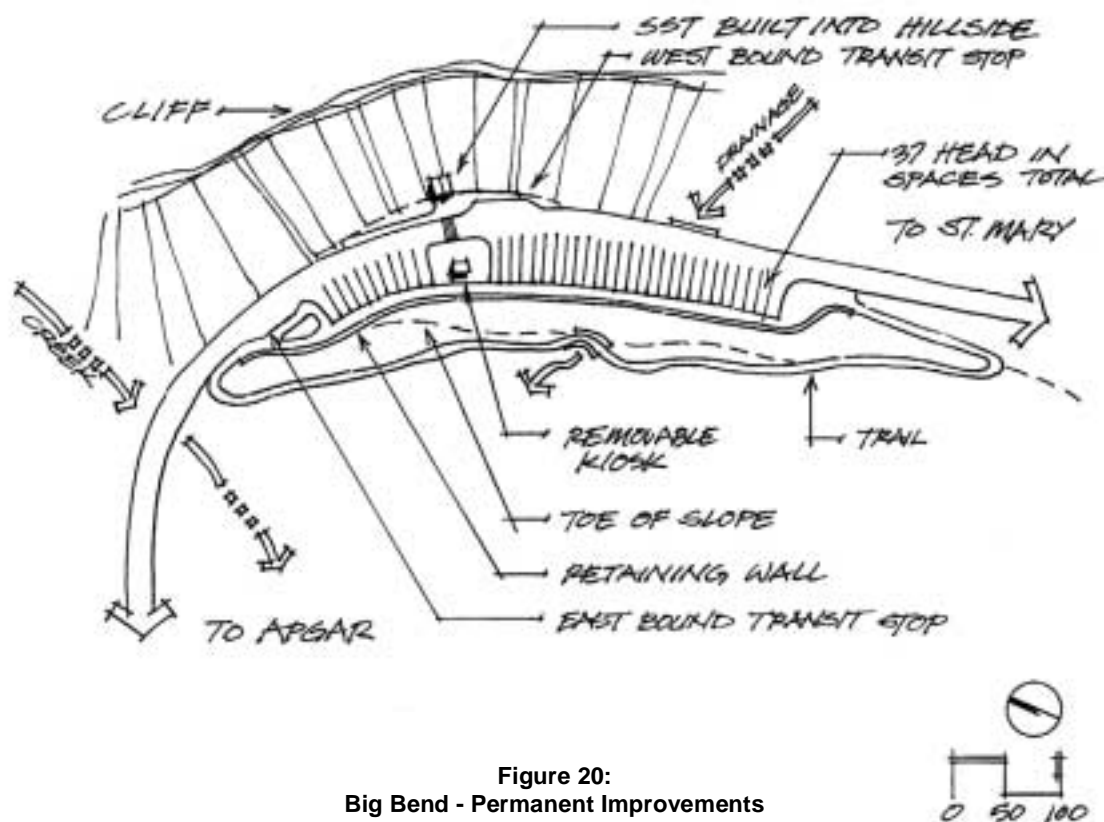


Figure 20:  
Big Bend - Permanent Improvements

- In conjunction with either of the above improvement scenarios, consideration should be given to installing a removable information kiosk at Big Bend. This kiosk could be used to post information (either general or real-time) about parking conditions at Logan Pass as well as other useful visitor information.

**Improvement Opportunities: Transit.** If an improved shuttle system is implemented by the park, separate eastbound and westbound transit stops could be included at Big Bend. Transit shelters would likely have to be removable due to the avalanche hazard that exists in this area, though there may be an opportunity to build the west-bound shelter permanently into the hillside.

### Logan Pass

**Existing Facilities.** Logan Pass is the highest elevation on the Road. Many visitors consider it a destination in itself because it is the “top of the road,” and provides access to the “above treeline” areas and interpretation. The very presence of the visitor center building and the large parking area tends to draw people in by giving the impression that “there is something going on, we better check it out.” Visitor facilities at Logan Pass include the following:

- **Parking.** The parking lot at Logan Pass is the most congested vehicle area along Going-to-the-Sun Road. The lot contains approximately 237 public parking spaces; yet, parking demand exceeds capacity from about 11:00 a.m. to 4:00 p.m. on most good-weather days during the peak visitor months of July and August. When the parking lot is full, traffic cones and signs are set up at the entrance to inform drivers that parking is not available. Picnicking in the parking area is discouraged in an attempt to reduce parking duration and increase vehicle turnover.
- **Visitor Center.** The visitor center includes an information desk, book sales, and interpretive/educational exhibits. The interior of the visitor center is also overcrowded. Visitors feel compelled to rush through reading the interpretive and educational material presented due to the push of people passing through the building. The book sales area takes up over half of the available floor space. Due to the overcrowding, noise levels in the building are high making it less enjoyable to some and difficult to hear information offered at the visitor desk to those with a hearing impairment. The visitor center building is not fully accessible to the physically challenged; however, the NPS has a plan in place to provide a ramp at an appropriate grade to rectify this situation. Construction of this ramp is due to begin later this year.
- **Comfort Station.** Separate men's and women's bathroom facilities are provided underneath the visitor center. This comfort station area is fully accessible. These are some of the most used comfort stations in the park and their holding tank is pumped out three times a day during the peak visitor season.

- **Day Use and Overnight Trails.** Two very popular and heavily used trails have trailheads at Logan Pass. Separate parking is not available for these trails and hikers use the Logan Pass parking lot.

The Hidden Lake trail, which is highlighted on the visitor map as a nature trail, starts at the rear of the visitor center and provides a wooden boardwalk for a significant portion of its length over the continental divide and out to the overlook of Hidden Lake. This is not a loop trail and hikers return the way they went in. Hiking this trail to the overlook and back requires two to three hours. This trail is very heavily used.

The Highline Trail also starts at Logan Pass. This trail extends along the face of the Garden Wall and ties into the overall park trail system at the Granite Park Chalet. From there hikers can choose trails to The Loop, Many Glacier, or Goat Haunt. The trail to the Loop requires most of the day to complete. The Many Glacier and Goat Haunt trails typically require an overnight back-country stay.

- **Interpretive Signs.** Interpretive signs are present around the visitor center building.

**Improvement Options: Use Leveling.** As it is with the Avalanche area, the need for use leveling is very evident at Logan Pass. Opportunities to disperse some of the existing use have been considered. Options are as follows:

- **Relocate interpretive information.** About one-third of Glacier is above treeline. The primary place for interpreting this portion of the park is at Logan Pass. To reduce congestion and parking demand at the pass, some of this interpretation could instead be presented on the approaches to the pass through additional waysides, kiosks, and interpretive opportunities, and also at the West Side Discovery Center and St. Mary Visitor Center through exhibits and multimedia presentations.
- **Provide comfort stations at Big Bend and Siyeh Bend** (west and east of the Pass, respectively) to alleviate the demand for comfort stations at Logan Pass. This should help to reduce parking demand and duration as well as visitor activity at Logan Pass.
- **Redistribute book sales from the Logan Pass Visitor Center to the proposed Discovery Center and other areas.** This would make enough space available

in the visitor center to address overcrowding issues and accommodate its other uses.

**Improvement Opportunities: Physical Improvements.** In conjunction with the use leveling options listed above, physical improvements to the Logan Pass area should be considered to better accommodate and/or deal with visitor demand. Improvement options identified for this area include:

- ***Reduce the number of shuttle parking spaces in the parking lot.*** These spaces are typically empty (according to park staff, they are all full at the same time only a couple of times a year) and better use of the space could be made for private vehicles. More closely coordinated shuttle and tour operations could potentially further reduce the number of transit spaces needed.
- ***Move the NPS parking*** from the very front of the lot to the rear of the lot. This will not increase parking space count, but will help with public relations and provide the public quicker access and egress.
- ***Expand the parking lot*** to the southeast to provide a greater number of parking spaces.

### **Improvement Options: Transit.**

- Approximately eight to fifteen of the vehicles parked at Logan Pass on an average day belong to overnight backcountry hikers. Still others belong to hikers on the Highline Trail to the Loop. If a better, more regular shuttle system were in place, perhaps hikers could be convinced to park at a different location and use the shuttle to access the Logan Pass trailhead. This would reduce parking demand on the Logan Pass parking lot.
- In conjunction with improved transit service, transportation demand management (TDM) options could be considered. These options might include gates at the entrance and exit of the parking lot so that the longer visitors stay in the lot, the more they pay (similar to a public parking garage); or not allowing cars into the lot for a set period of time starting around 11:00 a.m. (access to Logan Pass would be by transit only, cars already in the lot would be allowed to stay); or use of the Logan Pass area trails by advance reservation only.
- An important point to take into consideration regarding improved transit service is that the parking lot congestion provides an artificial control on the number of visitors in the Logan Pass area. If transit became a significant factor in transporting park visitors, then this artificial control would be overridden and use of the area

might increase to undesirable levels causing even more crowding of the visitor center and hiking trails and greater resource damage.

## Siyeh Bend

**Existing Facilities.** Siyeh Bend provides a very nice blend of scenic vistas and access to moving water that makes it a popular stop on the Road's east side. Parking pullouts, a transit shuttle stop, and a trailhead exist at this location. Two to three times a week, ranger-led interpretive hikes are conducted starting at this trailhead and ending at Sunrift Gorge. This trailhead is also a popular starting point for a hike over Piegan Pass and down into the Many Glacier valley. Parking and pedestrian safety are not considered problems at this location.

**Improvement Options: Use Leveling.** Due to its fairly close proximity to Logan Pass, the Siyeh Bend area presents an opportunity to siphon off visitor use pressure from the Pass. Opportunities to attract additional visitor use are as follows:

- ***Install a comfort station.*** This is the last likely place east of Logan Pass for a comfort station. If visitors use the comfort station here where there is currently adequate parking, they will likely not have to use the comfort station at Logan Pass, shortening their stay at the Pass, or eliminating it altogether. (See Logan Pass section above for a discussion of the parking shortage at that location.) The comfort station should be attractive and large enough to meet the required demand, perhaps something along the lines of the SST that exists at Grizzly Point.
- ***Interpretation of the alpine area*** here and at other pullouts between here and the pass could reduce some parking and visitor use pressures at Logan Pass. Information and interpretation kiosks could be installed, similar to those proposed for the Big Bend area.

**Improvement Options: Physical Improvements.** To facilitate the use leveling options listed above, physical improvements to Siyeh Bend should be considered. Improvement options identified for this area are as follows:

- ***Formalized Parking and Comfort Station*** (Figure 21). Because this area functions well currently and requires only basic amenities, only one improvement scenario is considered. This includes formalizing parking and pedestrian circulation and adding a comfort station.

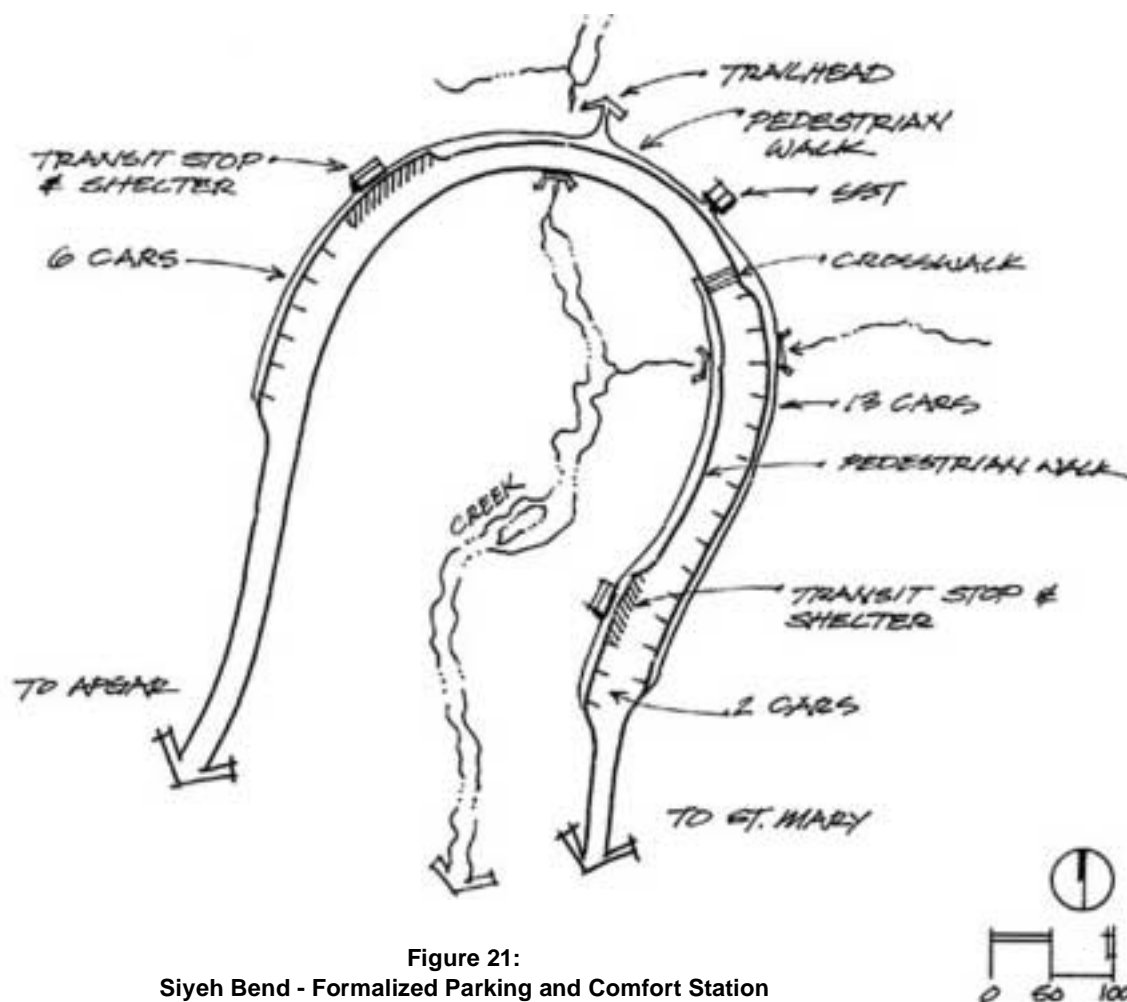


Figure 21:  
Siyeh Bend - Formalized Parking and Comfort Station

**Improvement Options: Transit.** If an improved shuttle system is implemented by the park, separate eastbound and westbound transit stops with shelters should be included at Siyeh Bend. These are also shown in Figure 21.

## Baring Creek Bridge

**Existing Facilities.** The Baring Creek Bridge and nearby Sunrift Gorge is another example of where the popularity of the site has resulted in parking demand in excess of parking capacity. This, in turn, results in vehicles parked in undesirable locations. Attractions at this location are located on both sides of the Road which results in a high number of pedestrian crossings of the road.

Existing features at this location include parking areas on both sides of the road, trailheads on both sides of the road, fast-moving water in Baring Creek as it crosses under the road, the very attractive historic stonework structure of the Baring Creek Bridge itself, and the nearby Sunrift Gorge.

**Improvement Options: Use Leveling.** The following opportunity to disperse some of the existing use from the Baring Creek Bridge area has been identified.

- **Relocate the Siyeh trailhead** a short distance down the Road to the existing patrol cabin access road (chained off dirt road on north side of Going-to-the-Sun Road). (This would require cutting a short section of new trail between the existing trail and the patrol cabin, but would not add significantly to the length of the hike.) Create trailhead parking along the Road on its south side opposite the new trailhead. This would remove all the Siyeh Trail parking from the Baring Creek Bridge area.
- **Redirect the Sun Point and St. Mary Lake trails** to two separate, new parking areas east and west of Baring Creek.
- **Shorten the visitor's stay** by emphasizing only Sunrift Gorge and the area under/around the bridge.

**Improvement Options: Physical Improvements.** In addition to the use leveling concept described above, physical improvements to the Baring Creek area should be considered.

- **Formalized Parking** (Figure 22). Because of limited opportunities, only one improvement scenario is presented. This includes eliminating some unsafe parking areas from the north side of the road and formalizing parking and pedestrian circulation. Also, the existing pedestrian walkway down to the area of the water on the north side of the bridge is inadequate and potentially unsafe. This walkway should be improved.

**Improvement Options: Transit.** If an improved shuttle system is implemented by the park, separate eastbound and westbound transit stops with shelters should be included at Baring Creek. These are also shown in Figure 22.

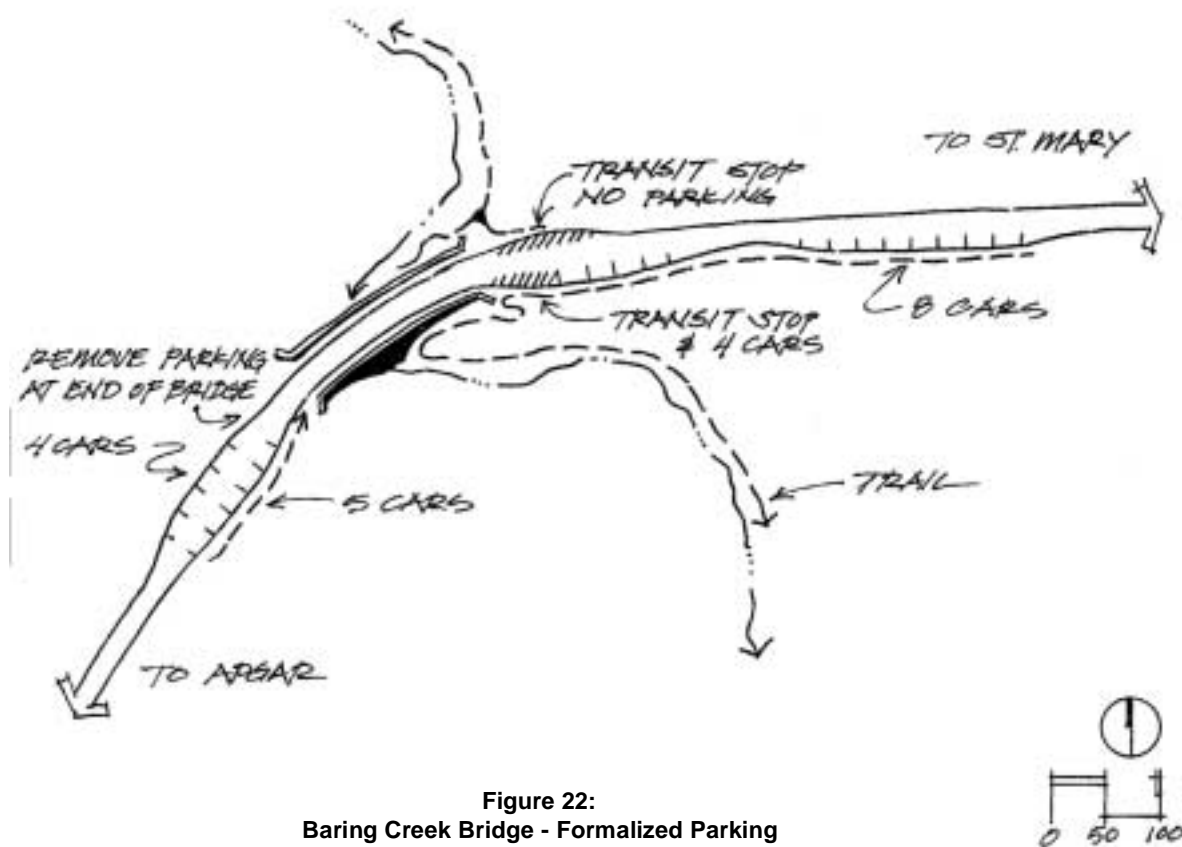


Figure 22:  
Baring Creek Bridge - Formalized Parking

## Sun Point

**Existing Facilities.** Sun Point is a very large parking area with picnic facilities and trailheads located approximately 1,000 feet south of Going-to-the-Sun Road near the shore of St. Mary Lake. The picnic facilities are located just off the edge of the parking surface and are not up to the standard of other picnic areas along the Road. Several trails can be accessed from this area including the Sun Point Nature Trail, Piegan Pass Trail, and a trail around the south side of St. Mary Lake. This is also the turn around/parking point for oversized vehicles entering Glacier from the east (vehicles over twenty-one feet in length or eight feet in width are not allowed on Going-to-the-Sun Road between Sun Point and Avalanche). Because of the large size of this area, it easily accommodates all of these visitor uses as well as material staging for park construction projects.

**Improvement Options: Use Leveling.** The size of Sun Point is greatly underused making it a natural candidate for use leveling visitor activities. However, it does not provide naturally for any of the visitor uses that need to be drawn off from other, more heavily used areas. Visitor orientation, information, and interpretation opportunities might be considered for this area.

**Improvement Options: Physical.** Physical improvements that should be considered for Sun Point include:

- ***Improved picnic facilities*** removed from the immediate vicinity of the parking lots and brought up to the standard of other picnic facilities along Going-to-the-Sun Road.
- ***Interpretive exhibits*** that take advantage of the fact that the Going-to-the-Sun Chalet once stood adjacent to the parking area to explain how early visitors to the park made their way into and through the park (train, horse, etc.) and what accommodations were provided by the historic backcountry chalet system.
- ***Designated RV and oversized vehicle parking*** areas for those that want to unhitch a trailer and enjoy the remainder of the Going-to-the-Sun Road.
- ***Add a comfort station*** to compliment the picnic and hiking uses.
- ***Improve views*** down the valley and up into the mountains from the Nature Trail. Consider making this trail fully ADA accessible for the physically challenged.

**Improvement Options: Transit.** If an improved shuttle system is implemented by the park, a transit stop with a shelter should be included at Sun Point. This is shown in Figure 23. Because of the great size of this area, it could be considered as a bus staging area, or even as the east side transit center.

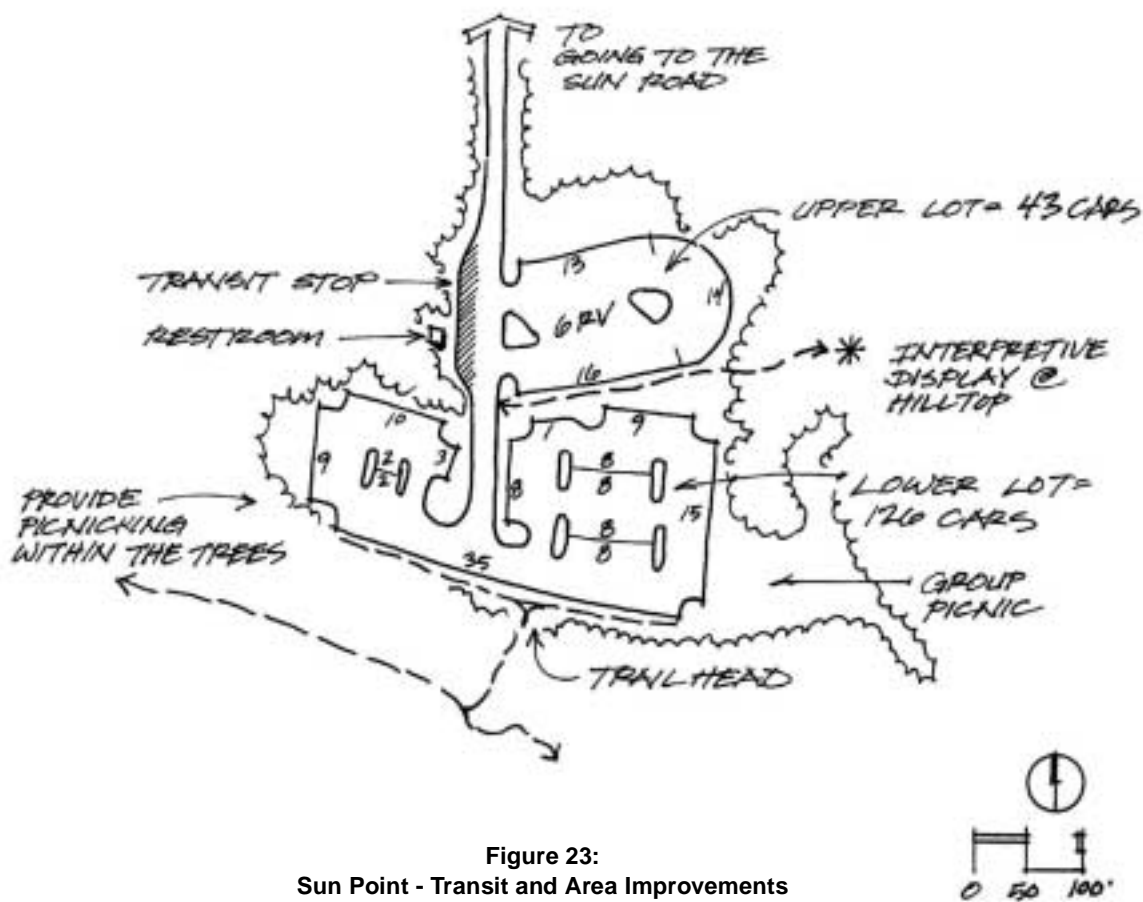


Figure 23:  
Sun Point - Transit and Area Improvements

## Wild Goose Island Overlook

**Existing Facilities.** The overlook of Wild Goose Island on St. Mary Lake is one of the most photographed sites in Glacier. Existing facilities at this location are very basic, simple parking areas and a scenic overlook. However, enough people stop to view and photograph this location that parking and pedestrian safety are at times a problem.

Parking is currently provided in three areas, on the north side of the road several hundred feet west of the overlook, on the north side of the road directly opposite the overlook, and on the south side of the road immediately east of the overlook. The overlook is on the south side of the road. The parking areas on the north side of the road require pedestrians to cross the road to access the overlook. Sight distances

are not adequate for safe crossing from the north side parking area directly opposite the overlook. Vehicles are parked in the parking lots in a haphazard manner, resulting in an inefficient use of space and, at peak times, overcrowding.

**Improvement Options: Use Leveling.** This site receives an appropriate level of visitor usage (although many people stop, stays are typically short); therefore, use leveling (neither attracting or diverting visitor usage) is not necessary or recommended for this location.

**Improvement Options: Physical Improvements.** In order to address the pedestrian crossing safety issue at this location, the following improvement options are presented:

- ***Slightly Shift Road Alignment and Relocate Parking to Near Side*** (Figure 24). This option eliminates the pedestrian crossing safety issue by moving all of the parking to the same side of the Road as the overlook. The Road is shifted slightly

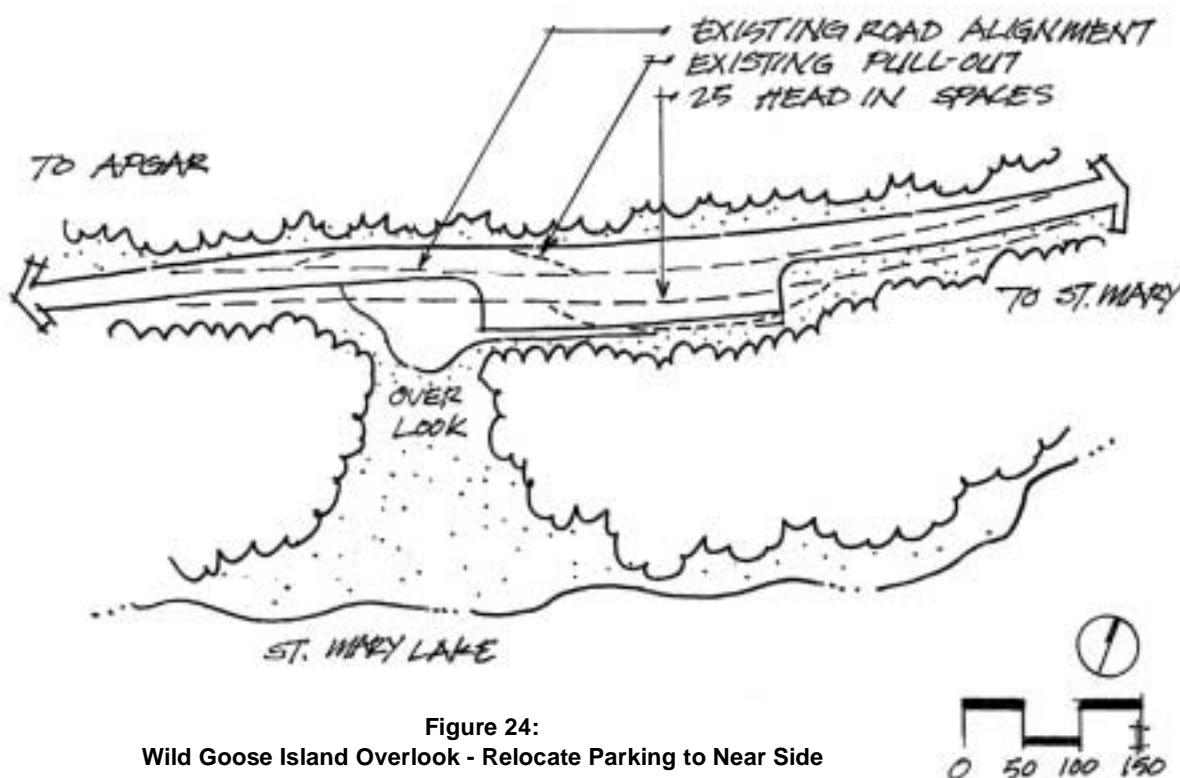


Figure 24:  
Wild Goose Island Overlook - Relocate Parking to Near Side

through what is currently the parking area on the north side of the Road and all parking is formalized on the south side of the Road.

- **Improved Pedestrian Crosswalk** (Figure 25). Another, less direct and less effective pedestrian crossing improvement option is to emphasize the crosswalk through painting or a change in road texture. The effort here is to make drivers more aware of pedestrians in the roadway. In conjunction with this, vegetation should be cleared in front of the existing crosswalk warning signs so that the signs are more visible to drivers.
- **A short trail should be built** to connect the main overlook with the secondary overlook located a short distance to the west. This would result in fewer social trails and reduce the likelihood of anyone walking on the Road between these two locations.

**Improvement Options: Transit.** If an improved shuttle system is implemented by the park, a transit stop with a shelter should be included at Wild Goose Island.

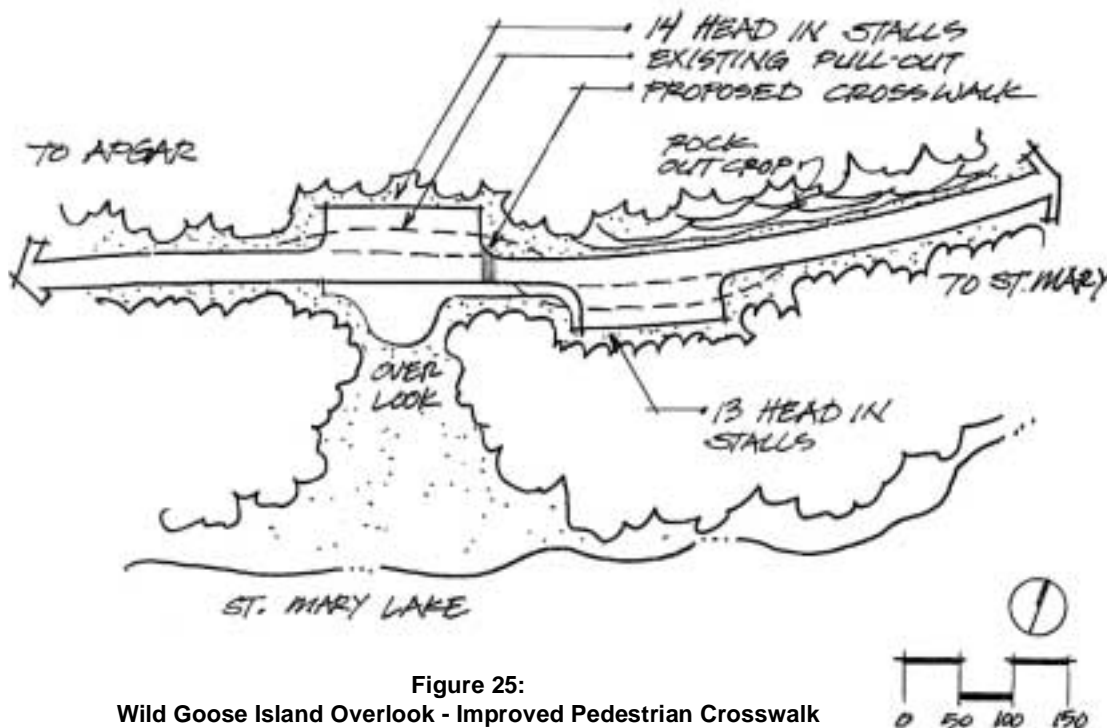


Figure 25:  
Wild Goose Island Overlook - Improved Pedestrian Crosswalk

## Indicators, Standards, and Monitoring

Historically, visitor use information for national parks has been scarce due to a lack of understanding of, and only recent interest in, visitor use management. Overcrowding of national parks has brought this issue to the forefront in recent years; however, a uniform and approved system of determining carrying capacities and measuring visitor use has not yet been established. To describe indicators within the park, a discussion will first be laid out concerning the relationships between indicators, standards, and monitoring, as all three of these concepts must be considered.

- An **indicator** is a type of measurement that could be used to determine the current level of use for an activity.
- A **standard** is a specific level that is set and determined to be a minimum or adequate condition for the activity.
- **Monitoring** involves measurements to determine whether the activities are remaining within the standards that have been set.

Surveys are a useful tool for determining whether or not the park is at or over capacity. While surveys can be subjective in nature, an average of the overall opinion of visitors gives a good idea of whether the current situation is adequate. While standards are difficult to set based on public sentiment, it is possible that some sort of average or majority opinion could be used to set a guideline for standards. Monitoring of such activities involves the use of surveys over time to identify trends. Trends give the clearest and most representative idea of the functioning of things like existing transportation facilities and appropriate visitor use levels.

**Indicator Options:** Visitor use and transportation modes can be measured in many ways. For most national parks, this is done in a manner consistent with the features of that particular park. However, the development of uniform visitor use/transportation indicators could serve as guidelines for all parks, to be modified as necessary. The forms of measurement below have been used at other national parks and should be considered for use within Glacier as the park does not currently have specific or documented standards and indicators for visitor use.

- **Road Counts (Average Daily Traffic).** Transit and traffic counts are good tools for monitoring usage of roadways and numbers of visitors to the park. Traffic

counts are conducted by placing counters at strategic locations along roadways. The transit provider can conduct transit counts on an ongoing basis. Both counts are most effective when done on a daily basis throughout the season so that trends such as annual counts, counts by week, and counts by day of week and time of day can be compared.

- **Visitor Satisfaction.** Visitor satisfaction levels can be documented through monitoring tools such as surveys, interviews, or observation. However, this type of information should be gathered actively rather than passively. In other words, if visitor satisfaction is measured based solely on the number of people who report negative experiences, the results do not provide a true picture of overall visitor satisfaction. It would be difficult to determine whether or not this means that all other visitors are satisfied, or if they have chosen not to report negative experiences. A standard for visitor satisfaction could be based on factors such as a pre-determined percentage of people that respond favorably to park conditions, or an average of several responses.
- **Visitor Amenities Beyond Capacity.** Visitor amenities that are over capacity provide another way of measuring visitor use. Standards for exceeded capacities vary, depending on whether or not a definite number can be determined. Parking lots, for example, have a set number of spaces. If all spaces are in use, the parking lot is at capacity. If other vehicles are waiting to park in that lot, it is over capacity and the standard has been exceeded. Park staff would be responsible for monitoring parking areas that experience higher volumes. Pedestrian trails (frontcountry or backcountry), however, do not have a “set” limit of people that can be present at one time. Therefore, determining capacity is much more subjective. These types of capacities must be measured by visitor surveys, interviews, and observations.
- **Impact to Resources.** Impact to resources is another indicator that could be measured by park staff. Especially in developed or frequently used areas of the park, impact to resources could be measured in definite terms. For example, if the disappearance of a set number of plants or the occurrence of viewing a particular species of wildlife falls below a certain level in a designated area, that standard has been exceeded. Monitoring for these conditions can be carried out by staff biologists or other qualified personnel.
- **Number of People at One Site at One Time.** While it is not difficult to determine the number of people at one site at one time, it is difficult to determine how many would be considered capacity. This can be measured subjectively by interviewing

visitors in that area. Visitors are asked how many people can be in the area before it is “too crowded.” This type of subjective measurement would be averaged to obtain the most fair and accurate data to be used as a standard.

- **Encounter Rates.** Encounter rates involve the number of times an individual or group of people encounters other visitors in a particular area, such as on a hiking trail. This can also be measured subjectively by surveying or interviewing visitors as to acceptable encounter rates. The information would then be averaged to determine an acceptable standard for encounter rates for the largest number of visitors.
- **Ability to Interact with a Ranger.** For some visitors, the ability to interact with a ranger is an important and enjoyable aspect of visiting the park. These visitors appreciate the opportunity to ask questions and gain first-hand knowledge about the history of the park, current conditions, and good places to visit. When visitor use is high during the peak season, rangers may be more difficult to find, or may not have the time to spend with each visitor. Visitor interviews or surveys can determine whether or not a ranger was present during their visit (the standard), or if they were able to find a ranger when necessary or desired.
- **Noise.** Acceptable noise levels in different areas of the park can be set to correspond to the experience level of that particular area. For example, the Avalanche area may have a higher noise threshold level because the area is more developed and visitor use is high. However, once this threshold has been reached (determined by monitoring over a period of time by park staff), this could serve as an indicator that visitor use has surpassed the acceptable standard for this area.

**Example Situation:** The Avalanche Creek area has recently been improved to provide for several day-use activities. However, even with the improvements, parking is at a premium, especially during the peak season. Visitors want to stop and enjoy the day use opportunities at Avalanche, but are prohibited from doing so because they cannot find a place to park. Because of this, visitor experience is compromised. What should be done to address this issue? Providing more parking seems like a logical answer, but the potential impacts of doing so may actually harm instead of enhance the visitor experience. The two-hour hike to Avalanche Lake is one of the day use activities that many visitors want to experience. However, existing visitation to Avalanche Lake has already impacted the natural resource visitors come to see.

Adding more parking will provide for greater use and therefore even more impact on the resource.

A detailed analysis of visitor use patterns at Avalanche is an important tool for park staff to use in developing a future management strategy for this major day use area. Surveys of users during peak season, coupled with user statistics such as number of trail users and periods of capacity parking, can be combined with an assessment of resource depletion at Avalanche Lake. With this information, park staff can better assess the existing situation and make informed decisions about what should be done.